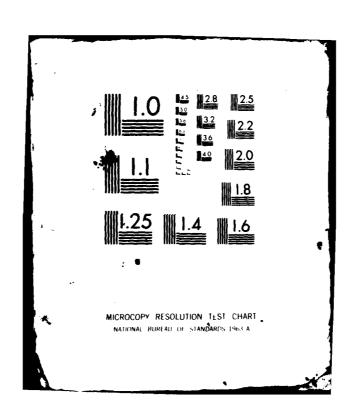
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# Report Number 1

APPLICATION OF A COMPUTERIZED GENERAL PURPOSE INFORMATION MANAGEMENT SYSTEM (SELGEM) TO MEDICALLY IMPORTANT ARTHROPODS (DIPTERA: CULICIDAE)

Annual Report

Terry L. Erwin

June 1980

For the period 1 September 1979 to 30 May 1980

supported by

U. S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND

Fort Detrick, Frederick, MD 21701

Contract No. DAMD-17-79-C-9149

Smithsonian Institution

Washington, DC 20560



## DOD AVAILABILITY STATEMENT

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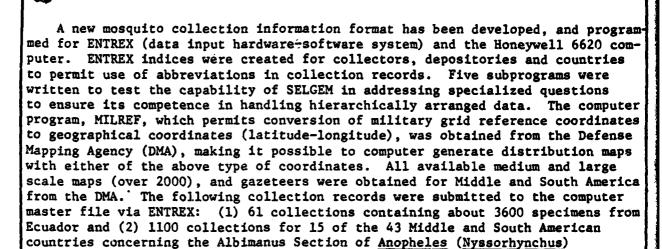
Mosquitoes, Culicidae, Malaria, Arbovirus, Systematics, Distribution, Vectors

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Mosquito Information Management Project was initiated in 1979 for the purpose of developing a computer-based systematic and ecological master file (data bank) of the National Museum Mosquito Collection housed in the Smithsonian Institution. The approximately 500,000 specimens with associated data constitute the best mosquito collection in the world. The data management system SELGEM (SELf-GEnerating Master) was adapted to meet the needs of the project.

DD FORM 1473 EDITION OF ! NOV 65 IS OBSOLETE

(Faran, 1980).



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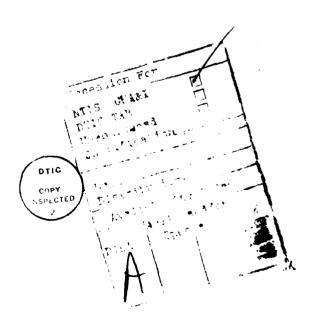
## SUMMARY

The Mosquito Information Management Project was initiated in 1979 for the purpose of developing a computer-based systematic and ecological master file (data bank) of the National Museum Mosquito Collection housed in the Smithsonian Institution. The approximately 500,000 specimens with associated data constitute the best mosquito collection in the world. The data management system SELGEM (SELf-GEnerating Master) was adapted to meet the needs of the project.

A new mosquito collection information format has been developed, and programmed for ENTREX (data input hardware-software system) and the Honeywell 6620 computer. ENTREX indices were created for collectors, depositories and countries to permit use of abbreviations in collection records. Five subprograms were written to test the capability of SELGEM in addressing specialized questions to ensure its competence in handling hierarchically arranged data. The computer program, MILREF, which permits conversion of military grid reference coordinates to geographical coordinates (latitudelongitude), was obtained from the Defense Mapping Agency (DMA), making it possible to computer generate distribution maps with either of the above type of coordinates. All available medium and large scale maps (over 2000), and gazeteers were obtained for Middle and South America from the DMA. The following collection records were submitted to the computer master file via ENTREX: (1) 61 collections containing about 3600 specimens from Ecuador and (2) 1100 collections for 15 of the 43 Middle and South American countries concerning the Albimanus Section of Anopheles (Nyssorhynchus) (Faran, 1980).

# FORWARD

Citation of trade names in this report does not consitute an official endorsement or approval of the use of such commercial items.



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## INTRODUCTION

The Mosquito Information Management Project is a definitive study that will result in the development of a computer-based systematic and ecological master file (data bank) of the United States National Museum Mosquito Collection, the largest and best such collection in the world. The master file will: (1) provide important, easily accessible, coordinated systematic, ecologic, and vector data to the military, public health organizations and other scientific and environmental agencies; (2) enhance and support research conducted by Department of Entomology, AFRIMS Medical Research Laboratory, Thailand, U.S. Army Medical Research Unit Brasilia (USAMRU), and the Medical Entomology Project (MEP); (3) provide knowledge of gaps in the collection and allow new collection strategies; (4) alleviate managerial problems by providing a timely and cost-efficient collection inventory; and (5) serve as a model for data capture involving mosquito biology throughout the world.

The Mosquito Information Management Project works in close association with the Department of Entomology, Walter Reed Army Institute of Research and the Medical Entomology Project, Smithsonian Institution, and is designed to be responsive to each of their needs.

# REVIEW OF PROGRESS FOR THE PERIOD

1 September 1979 to 31 May 1980

## I. Equipment and Personnel

- A. Museum technician, Charlotte Burnett, was hired and she began work on 1 September 1979.
- B. The following equipment was ordered and received: Hazeltine 1510 CRT terminal; Anadex Printer, and; Techtran 816 datacassette.

## II. Development of SELGEM Master File and Querying Capabilities

A. Collection Form (Appendix 1) - A new collection information form
was designed to assist in data entry and expand retrieval capabilities.
This new form has combined features of the forms of the project
Mosquitoes of Middle America (MOMA) and the Medical Entomology
Project (MEP). In addition, this form allows gathering of data
on the (1) medical importance of each species, (2) museum data,
(3) name of individual who determined species, (4) synonyms,
(5) important reference(s), (6) type-data (if collection contains
types) and (7) species code (explained in 1980 research proposal).
These forms have been adopted by MEP and were field tested JanuaryFebruary 1980, in South Africa by Dr. Y.-M. Huang.

# B. SELGEM Master File and Data Entry

1. <u>SELGEM Program</u> - A custom auxiliary program was designed and written to handle the hierarchically arranged data included in the new collection information form. In a hierarchical file such as this, data is arranged in a pyramid fashion, that is, for any one particular category within a record there may be several, independent subcategories. In order to gain maximal

accessibility to the information stored in this kind of file the computer must be able to search and associate data stored among the many records, and also the data in the different subcategories within a single record.

2. ENTREX Program and Files - The format of the new collection record was programmed into the hardware-software system, ENTREX, which greatly increases efficiency of data entry (Appendix 2 and see methods in 1980 proposal). ENTREX indices were created for collectors, depositories and countries to permit use of abbreviations in the collection records.

# 3. Collection Records in Master File

- a) Ecuador File 61 collection records concerning about 3600 specimens were submitted to the computer via ENTREX as part of an initial test of SELGEM's capability (see 4, below).
- b) Nyssorhynchus collection 1100 collection records, with associated species, for 15 of the 43 Middle and South American countries for the Albimanus section of Nyssorhynchus (Faran, 1980) have been submitted to computer.
- 4. <u>SELGEM Subprograms</u> Five computer subprograms have been developed to test the ability of SELGEM in addressing specialized questions. The SELGEM system was tested with the Ecuador file, before building other files, to ensure that it was capable of associating data in a hierarchical fashion. To test this the following questions were presented to SELGEM (answers in Appendix 3):

- a) What species have been collected in association with <u>Culex</u> (Mel.) bastagarius in Ecuador?
- b) Where has Anopheles (Nys.) trinkae been collected in Ecuador?
- c) Has An. (Nys.) trinkae ever been collected in ground pools?
  Where?
- d) How many larval-pupal-female and larval-pupal-male individual rearings of An. (Nys.) trinkae are from Ecuador?
- e) What months of the year has An. (Nys.) rangeli been collected in Ecuador?
- f) Has An. (Nys.) trinkae been collected above 250 M elevation in Ecuador? Where?
- g) List the locality data, general environment, and immature habitats for all the collections which include An. (Nys.) trinkae from Ecuador.
- h) Has An. (Nys.) trinkae been collected with An. (Nys.) rangeli in Ecuador? In what type of habitat?
- 5. Computer Conversion of Military Grid Reference Coordinates to

  Geographic Coordinates (latitude-longitude) -

A computer program, written in FORTRAN IV entitled MILREF, was obtained from the Defense Mapping Agency (DMA). MILREF converts military grid reference coordinates to geographic coordinates.

Most of the locality data on the MOMA and MEP forms is recorded in military grid coordinates; however, the computerized plotter at the Smithsonian can only plot distribution maps with geographic coordinates. The acquisition of MILREF now permits the generation of extremely accurate computer-plotted, species distribution maps with locality data in either military grid reference

coordinates or geographic coordinates.

- 6. Maps All available medium and large scale maps (over 2000), and gazeteers were obtained for Middle and South America from the DMA. These maps will be used to verify locality data recorded on the collection records.
- 7. Presentation at Annual Meeting of American Society of Tropical

  Medicine and Hygiene (ASTMH) An abstract has been submitted

  to ASTMH for a paper on the Mosquito Information Management Project
  to be presented at the 1980 annual meeting scheduled 5-7 November.

# **VISITORS**

Visitors to this project include Dr. Charles L. Bailey (WRAIR, Washington, D.C.), Dr. John N. Belkin (University of California, Los Angeles, CA), Dr. Theodore J. Crovello, (University of Notre Dame, Notre Dame, Indiana), Dr. Richard H. Foote (U.S.D.A., Washington, D.C.), Dr. Kenneth J. Linthicum (WRAIR, Washington, D.C.), Dr. L. P. Lounibos (Florida Medical Entomology Laboratory, Vero Beach, FL), Drs. Adel Merdan and Sherif El Said (Malaria Research Unit, Ain Shams University, (Cairo, Egypt), and Dr. David L. Vincent (U.S.D.A. Importation Project, Beltsville, MD).

Appendix 1
New Collection Form

# SMITHSONIAN INSTITUTION MEDICAL ENTOMOLOGY PROJECT

## LOCALITY

# Collection Form

| Country Code                   | Nearest Town           | Elevation |
|--------------------------------|------------------------|-----------|
| Numbes                         | Specific Locality      | Date      |
| Country                        | Map Designation        | Time      |
| State, Province or Department  | Grid Coordinates       | Photo     |
| Second Administrative Division | Letitude and Longitude | Collector |
|                                |                        |           |

| Second Administrative Division  | Letts   | ude and Longitude  | Callector  |   |
|---|---|--|--|---|
| GENERAL ENVIRONMENT  1. Air temp  | f. needle leafed<br>g. bryophytes<br>h. fungi   | HABITAT OF IMMATURES  1. Modifiers of breeding site  | 2. leaf 3. trond 4. spathe   | 8. Aquatic vegetation a. quantity 1. none   |
| a. WetC b. DryC 2.% RHC 4. Wind kph a. none   | L other 13.Woody plants  a. height range 0-2-8-15-30 m b. density                                 | a. large b. medium e. smail d. natural e. artificial f. other  | 6. fruit  6. nut  7. rind  oc. artif. container  dd. trap, bemboo pot  | 2. scarce 3. some 4. abundans b. location 1. submerged 2. floating                  |
| b. light e. medium d. strong e. gale 5. Sky a. clear  | 1. 0 total absence 2. 1 low 3. 2 medium 4. 3 high 14. Herbs and grasses                           | 2. Breeding site a. pead b. lake e. ground pool d. flooded pool e. animal track  | ee, other  3. Light a. deep shade b. partial shade c. full sun   | 3. emergant c. type 1. grassy 2. herbaccous 3. woody 4. algae                       |
| b. partially cloudy e. overcast d. fog e. mist f. light rain g. heavy min 6. Annual rainfallmm              | a, height range<br>0-0.5-1-2-5-8 m<br>b, density<br>1. 0<br>2. 1<br>3. 2<br>4. 3                  | f. anim. container g. swamp, marshy depression h. marsh 1. fresh 2. tidal f. flooded forest J. seepage, spring           | 6. Height of site above groundm  5. Dist. collection from nearest homem  6. Water  6. Permanence  1. permanent | a. green b. brown c. blue-green d. other  |
| 7. Rainy season months JFMAMJJASONDJFM 8. Topography a. mountain b. bill e. valley                          | 15. Epiphytee   | k. well l. stream l. margin 2. tidal 3. pool ta. ditch, drain, canal a. pit o. fountain                                  | 2. semipermanent 3. temporary b. movement 1. stagment 2. slow 3. moderate                                      | HABITAT OF ADULTS  1. Specific site  2. Dist. collection from poset home            |
| d. plateau e. plain 2. Latitudinal regions a. subpolar b. boreal c. cool temperate d. warm temp/subtropical | 16.Edge effect, edge or inter<br>ior of<br>a. vegetation<br>b. swamp<br>c. road<br>d. dike        | p. gutter q. roed rut; wheel track t. erabbole a. rockhole 1. volcanie 2. coral  | 4. strong c. turbidity 1. clear 2. turbid d. color e. pH 1. hardness   | 3. Ht. above ground   |
| e, tropical  10. Altitudinal belt a. alpine b. subalpine c. montane d. lower montane e, near sea level      | e. benk t. other 17.Water effect, shore or m gin of a. sea b. lake c. stream                      | t. rockpool u. stumphole v. treehole w. bamboo   | g. salinity 1. fresh 2. brackish 3. salty h. pollution 1. anserobic 2. other                                   | 6. Behavior a. resting 1. house 2. animal shelter 3. cave 4. treshole 5. vegetation |
| 11. Life zone a. Holdridge b. other  12. Vegetation types a. gymnosperms b. angiosperms                     | d. river e. swamp f. selt marsh g. other 18. Human influence a. clearing b. grazing e. plantation | 1. cut or broken 2. stump 3. split 4. uncut internode x. flower bract, spathe y. attached fruit, nut or pod 2. leaf axil | 1. bottom 1. mud 2. send 3. gravel 4. rock 5. organic matter a. plant  | 6. other b. biting 1. animal 2. human c. landing 1. snimal 2. human d. swarming     |
| 1. monocote 2. dicots c. deciduous d. nondeciduous e. broad leaind  | d sulfivation e. domestic f. poliution g. other   | 1. epiphytic 2. terrestrial as. pitcher plant bb. fallen plant part 1. tree  | 7. Collection method   | e. mating   |

REMARKS:

| Synonyma Bibliography   |  |  | TYPE DATA  Species: Kind of type(s), life stages, type numbers: Method of preparation: Type designator: Date of designation: Type name: | Original type name: |
|---|--|--|---|---------------------|
| MUSBUM DATA   |  | •  | नंश क्चंछ्छ।<br>चंद्र (रम्मिम्)   | > d                 |
| MUSEUM<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College<br>College | 0  |  |   | I                   |
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Appendix 2

ENTREX Format

ENTREX DATA ENTRY FORMAT

<u>С</u>

# MOSQUITO SELGEM PROJECT

LOCALITY

| COLLECTOR : | DATE : | LAT-LONG : | GRID COORDN: | MAP DESIG : | SPEC LOC : | MEAREST TWN: | PROVINCE : | COUNTRY :   | LOC CODE : |
|-------------|--------|------------|--------------|-------------|------------|--------------|------------|---|------------|
|             | TIME:  | +          |              |             |            | 1-91         |            | و په به ۱۰۰ م ما ۱۰۰ م با ایج په ما ما مه په ۱۰۰ م په با ۱۰۰ م په با ۱۰۰ م په با ۱۰۰ م په با ۱۰۰ م په |            |
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LOCN

LOCALITY NUMBER:

1.

# GENERAL ENVIRONMENT

| AIR TEMP :    |   |
|---------------|---|
| REL HUMIDITY: |   |
| WATER TEMP :  |   |
| WIND KPH      | WIND DESCR:                             |
| SKY DESCR :   |   |
| ANNUAL RAIN : | RAINY MO. :                             |
| TOPOGRAPHY :  |   |
| LAT. REGIONS: |   |
| LIFE ZONE     |   |
| HOLDRIDGE :   | 1950607576767676596                     |
| OTHER :       | >+++++++++++++++++++++++++++++++++++++  |
| VEG. TYPES    |   |
| A THRU H :    |   |
| OTHER :       |   |
| HOODY PLANTS: |   |
| HT. RANGE :   | DENSITY:                                |
| HRBS-GRASSES: |   |
| HT. RANGE :   | DENSITY:                                |
| EPIPHYTES :   | DENSITY:                                |
| EDGE EFFECT : |   |
| WATER EFFECT; |   |
| HUMAN INFLU : | *************************************** |
|               |   |

# HABIT OF IMMATURES

| AQUATIC YEG<br>QUANTITY :<br>TYPE :<br>ALGAE DSCR:<br>ALGAE, DEN: | COLL METHOD: | WATER PERMANENCE: TURBIDITY: SALINITY: BOTTOM: | NODE BREED :       |
|---|--------------|--|--------------------|
| LOCATION:   |              | MOVEMENT: PH: HARDNESS:                        | HEIGHT ABOVE GRND: |

# HABIT OF ADULTS

| MATING | SWARMING | LANDING | BITING | RESTING | BEHAVIOR | GROUND               | SPEC SITE               |
|--------|----------|---------|--------|---------|----------|----------------------|-------------------------|
|        |          |         |        |         |          | : COLLECTION METHOD: |                         |
|        |          |         |        | OTHER:  |          |                      | DIST COLL NEAREST HOME: |

|   | LOCALITY,    |
|---|--------------|
|   | GENERAL      |
|   | ENVIRONMENT. |
| į | HABIT        |
|   | 묶            |
|   | IMMATURES    |
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# MASS REARINGS

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Appendix 3

Sample Queries

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|--|--------------|---|--|--------------------------------|-------------------------------|----------------------------|---|--|--|----------------------------|----------|
| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2V3V4V5V6V77 | IR 1008 AND 1000 ENTERED AS 100 AND 101. IR 1005 WITH 2 | MR<br>1 CX. (MEL.) PILOSUS<br>004 *** *** *** *** ***<br>S. SIRIVANAKARN | MR<br>2 CX. (MEL.) BASTAGARIUS | MA<br>3 CX. (MEL.) SURSUMPTOR | MR<br>4 AN. (NYS.) TRINKAE | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>20 KM N<br>001000<br>06 MAY 1977<br>YIAU-MIN HUANG | VALLEY SCRUB LOISTANCE FROM NEAREST HOME 10-99 M LARGE POND FULL SUN PERMANENT SLOW SLIGHTLY FRESH SUBMERGED; FLOATING; EMERGENT BROWN SCARCE IR 1634. b, AND C ENTERED IN MR. | #R<br>1 CX. (MEL.) BASTAGARIUS<br>004 001 *** 003 002 003 *** ***<br>S. SIRIVANAKARN | MR<br>5 an. (NYS.) TRINKAE | ECU      |
|  | LINE         | 5   | 2222   | 22                             | 22                            | 20                         | 20202222  | 22222222222222   | 2222   | 22                         | 5        |
|  | CATEG LINE   | 500   | 600<br>605<br>610<br>640   | 609                            | 605                           | 600                        | 005<br>010<br>015<br>025<br>030<br>050<br>050   | 090<br>120<br>120<br>200<br>220<br>220<br>220<br>220<br>220<br>220<br>22   | 6.00<br>6.10<br>6.10   | 600                        | 900      |
| E: 02/07/80                                    | SERIAL       | 00000220  | 00000230   | 00000231                       | 00000232                      | 00000233                   | 00000280  | 000000000000000000000000000000000000000  | 00000300   | 00000322                   | 00001000 |

| : 02/01/80 |                                 |       | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST              | PAGE NO: |
|------------|---------------------------------|-------|---|----------|
| SERIAL     | CATEG                           | LINE  | 2V3V4V5V6V7   |          |
| 00001000   | 015<br>025<br>030<br>050<br>050 | 55555 | PASTAZA<br>PUYO<br>39 KM N<br>001750<br>06 MAY 1977         |          |
|            | 070                             | 5     | YIAU-MIN HUANG  |          |
| 00001100   | 060                             | 53    | 6   |          |
|            | 136                             | 55    | VALLEY<br>Scrub   | • .      |
|            | 160                             | 5 5   | ALONG ROAD  |          |
|            | 200                             | 55    | (A)   |          |
|            | 205                             | 5 5   | POND; LAKE; GROUND POOL<br>PARTIAL SHADE                    |          |
|            | 220                             | 5     | TEMPORARY   |          |
|            | 225<br>235                      | 5 5   | COLORED   |          |
|            | 250                             | 5     | FRESH   |          |
|            | 275                             | 5 5   | SUBMERGED: EMERGENT   | :        |
|            | 200                             | 55    | IR 112a ENTERED AS 112.                                     | :        |
| 06001110   | 009                             | 10    |   |          |
|            | 605                             | 5 5   | JAN. (MYS.) TRINKAR<br>Ban DD. CD. bet bet bet bet          |          |
|            | 640                             | 55    |   |          |
| 00001120   | 009                             | 6     | N.S.  |          |
|            | 605<br>61 <b>0</b>              | 2 2   | 2 CX. (MEL.) BASIAGARIUS<br>OG3 *** *** *** *** *** *** *** |          |
|            | 640                             | 5     | S. SIRIVANAKARN   |          |
| 00001121   | 600<br>605                      | 22    | MR<br>3 AN. (NYS.) RANGELI                                  |          |
| 00001122   | 600<br>505                      | 22    | MR<br>4 WY. SPS.  |          |
| 00001123   | 600                             | 22    | MR<br>5 CX, (CUX.) SPS.                                     |          |
| 00001124   | 600<br>605                      | 22    | MR<br>6 UR. (URA.) SPS.                                     |          |
| 00001125   | 600<br>605                      | 55    | МR<br>7 СХ. (CUX.) SPS.                                     | -        |
| 00001360   | 000<br>010<br>810               | 222   | ECU<br>ECUADOR<br>PASTAZA                                   |          |

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| BASTAGARIUS AND ASSOCIATED SPECIES<br>MASTER LIST | 2V3V4V5V6V7V | PUYO<br>4 KM NE<br>001250<br>07 MAY 1977<br>YIAU-MIN HUANG | VALLEY ALONG ROAD ALONG ROAD PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M SMALL GROUND PCOL FUIL SUN TEMPORARY STAGNANT CLEAR FRESH SUBNERGED; EMERGENT SCARCE IR 121a AND D ENTERED IN MR. | MR<br>1 CX. (MEL.) PILOSUS<br>+++ 001 001 +*+ +*+ +*+ +*+ +**<br>S. SIRIVANAXARN | MR<br>2 CX. (MEL.) BASTAGARIUS<br>+++ 004 005 *** 001 001 *** ***<br>S. SIRIVANAKARN | MR<br>3<br>004 *** *** *** *** *** | MR<br>5 an. (nys.) Rangeli | ECUADOR<br>ECUADOR<br>PASTAZA<br>PUYO<br>4 KM NE<br>001250<br>07 MAY 1977<br>YIAU-MIN HUANG | 11<br>VALLEY<br>ALONG ROAJ<br>PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M |
|   | LINE         | 22222  | 999999999999   | 2222   | 2222   | 222                                | 22                         | 2222222   | 2222  |
|   | CATEG        | 025<br>030<br>050<br>055<br>070                            | 000<br>000<br>000<br>000<br>000<br>000<br>000<br>000<br>000<br>00  | 600<br>605<br>610<br>640   | 600<br>605<br>610<br>340   | 600<br>60 <b>5</b><br>610          | 600<br>605                 | 000<br>010<br>020<br>020<br>050<br>070  | 090<br>120<br>160<br>170  |
| DATE: 02/07/80                                    | SERIAL       | 00001360   | 00001370   | 00001380   | 00001390   | 00001400                           | 00001402                   | 00001360  | 00001680  |

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| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2v3v4v5v6v77 | SMALL<br>GROUND POOL<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>SUBMERGED; EMERGENT | GREEN: BROWN<br>SCARCE<br>TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4. | MR<br>1 AN. (NYS.) TRINKAE<br>002 001 001 *** *** *** ***<br>M. E. FARAN | MR<br>3 CX. (MEL.) PILOSUS<br>*** 001 001 *** *** *** *** ***<br>S. SIRIVANAKARN | MR<br>4 CX. (MEL.) BASTAGARIUS<br>001 001 *** *** *** *** ***<br>S. SIRIVANAKARN | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>5 KM NE<br>001250<br>07 MAY 1977<br>YIAU-MIN HUANG | VALLEY ALONG ROAD DISTANCE FROM NEAKEST HOME 100-999 M LARGE GROUND POOL FULL SUN | STAGNANT CLEAR FRESH SUBMERGED; EMERGENT GREEN; SLIGHTLY GREEN SCARCE TWO WHOLE MOUNTED ADULTS INCLUDED IN MD. |
|  | LINE         | 2222222  | 222  | 2222   | 2222   | 2222   | 2222222   | 2222222   | 222222   |
|  | CATEG        | 200<br>220<br>220<br>220<br>250<br>250<br>250  | 285<br>290<br>500  | 600<br>605<br>610<br>640   | 600<br>605<br>610<br>640   | 600<br>605<br>610<br>640   | 005<br>010<br>025<br>030<br>050<br>050  | 090<br>150<br>170<br>200<br>210<br>220  | 222<br>230<br>250<br>250<br>250<br>250<br>250<br>250<br>250  |
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| BASTAGÁRIUS AND ASSOCIATED SPECIES<br>MASTER LIST | >            | MEL. )<br>002<br>/ANA!   | NE<br>1977<br>IN HUZ  | N<br>N<br>RY<br>T<br>T<br>BROWN<br>LE MC   | WEL.) 2 001 2 001 1 077 1 1977 1 1977 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                   |
| BASI  | 7            | MR<br>1 CX. (MEL.) BASTAGARIUS<br>002 001 002 004 002 002 ***<br>S. SIRIVANAKARN | Z 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3                         |  | NO NO NO NO NO NO NO NO NO NO NO NO NO N  |
|   | :            | MR → 000 C) S ·  | ECU<br>ECUADOR<br>PASTAZ/<br>PUYO<br>5.3 KM<br>001250<br>07 MAY | VALLEY<br>SCRUB<br>STREAM<br>DISTAM<br>DISTAM<br>LANGE<br>FULL SC<br>TEMPOR<br>FRESH<br>SUBMER<br>GREEN: | MR.  1 CX. ( 001 002 S. SIRI S. SIRI ECUADOR PASTAZA PASTAZA PUYO 01 MAY VALIEY VALIEY SCHUB ALONG SMALL GROUND |
|   | LINE         | <b>5555</b>  | 2222222   | 555555555555555555555555555555555555555  | 5555 5555555 555555   |
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|   | CATEG        | 600<br>605<br>610<br>640   | 000<br>000<br>000<br>000<br>000<br>000<br>000<br>000            | 090<br>120<br>136<br>165<br>170<br>200<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>2      | 600<br>610<br>610<br>610<br>610<br>610<br>610<br>610<br>610<br>610  |
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| BASTAGARIUS AND ASSOCIATED SPECIES<br>Waster List | ີ.          | á  | IR 1545 AND G RECORDED IN MR 5 AND 6  MR 1 CX. (MEL.) PILOSUS  001 *** *** *** *** *** ***  5. SIRIVANAKARN |  |                        |  |   |   |  |
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| BA  | 2V          | FULL SUN TEMPORARY STAGNANT CLEAR FRESH SUBMERGED; EMERGENT SCARCE IR 141 DAMAGED. IR 154a. C. AND & R | IR 1545 AND G RECORDED IN MI<br>MR<br>1 CX. (MEL.) PILOSUS<br>001 *** *** *** *** ***<br>5. SIRIVANAKARN    | MR<br>2 Cx. (MEL.) BASTAGARIUS<br>002 003 001 003 001 002 +<br>S. SIRIVANAKARN | MR<br>8 CX. (CUX.) SPS | MR<br>5 an. (NYS.) RANGELI<br>*** 002 *** 001 *** 001<br>M. E. FARAN | MR<br>6 CX. (MEL.) SPS.<br>*** 002 *** 001 001<br>S. SIRIVANAKARN | ECUADOR<br>PASTAZA<br>PUYO<br>16 KM NE<br>001000<br>07 MAY 1977 | 15<br>SCRUB<br>SCRUB<br>DISTANCE FROM NEAREST HOME 100-999<br>SMALL<br>GROUND POOL<br>FULL SUN |
|   | :           | STREET STREET  | S - 00 .  | £ 400 €.   | 2 00<br>2 00           | £ 0 ± ₹  | 6 + C   | ECUAL<br>PASTA<br>PUYO<br>16 KM<br>0010C<br>07 MA               | VAL<br>SCR<br>SMA<br>SRA<br>GRC<br>FUI   |
|   | LINE        | 55555556   | 5555  | 2222   | 55                     | 2222   | 2222  | 2222222   | 2222222  |
|   |             |  |   |  |                        |  |   |   |  |
|   | CATEG       | 2220<br>2220<br>2220<br>2220<br>2250<br>500  | 600<br>605<br>610<br>640  | 600<br>605<br>610<br>640   | 600                    | 600<br>605<br>610<br>640   | 300<br>605<br>610<br>840  | 005<br>010<br>015<br>025<br>030<br>050<br>050                   | 090<br>200<br>200<br>200<br>200<br>200<br>200  |
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| SERIAL         |     | CATEG  | LINE                                   | 2V3V4V5V6V7V   | •        |   |
| 00002840       |     | 223<br>235<br>275<br>275   | 5555                                   | STACNANT<br>COLORED<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FR<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRESH<br>FRES |          |   |
|                |     | 200  | 555                                    | GREEN: BRUNN<br>SCARCE<br>IR 100a AND D ENTERED AS MR 1.   |          |   |
| 00002845       | 845 | 600<br>505<br>610<br>640   | 5555                                   | MR<br>1 CX. (MEL.) BASTAGARIUS<br>4** 002 *** 002 001 001 *** ***<br>S. SIRIVANAKARN   |          |   |
| 00002846       |     | 605  | 55                                     | MR<br>2 AN. (NYS.) TRINKAE   |          | , |
| 00002847       |     | 600  | 22                                     | MR<br>3 AN. (NYS.) RANGELI   |          |   |
| 00003250       |     | 000<br>010<br>020<br>020<br>050  | 222222                                 | ECUADOR<br>PASTAZA<br>PUYO<br>000953S. 077 59W   |          |   |
|                |     | 070  | 5                                      | YIAU-MIN HUANG   |          | • |
| 00003770       |     | 090<br>1160<br>120<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>22 | 55555555555555555555555555555555555555 | VALLEY ALDNG ROAD STREAM DISTANCE FROM NEAREST HOME 100-999 M LARGE GROUND POOL; POND-LIKE FULL SUN TEMPORARY STAGNANT COLORED FRESH NR MR MR MR MR  MR  *** 602 001 002 002 *** *** *** S. SIRIVANKARN  |          |   |
| 00003801       |     | 600<br>605   | 55                                     | MR<br>4 An. (NYS.) TRINKAE   |          |   |

|   | V4V5V6V7    |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
|---|-------------|--------------------------------|----------------|------|-------------------|-------------------------------|----------|--------|--|--------|-------------|-----------|----------|-------|----------|------------|----------|------------------------|-------------------|------|----------|----------|------|----------|--------|-------------------------------|---|-----------|------------|----------------------------------|-------|-------------|-----------|----------|---------|
|   | :           |                                | •              |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
|   |             |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          | •                      |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
|   | :           |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
| IES   | ::          |                                |                |      |                   |                               |          |        | 3  | į      |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
| SPEC  |             |                                |                |      |                   |                               |          |        | 5001   |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            | <b>≥</b> 66                      |       |             |           |          |         |
| IATED<br>ST                                       | <b>?</b>    |                                |                |      |                   |                               |          |        | 100  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            | 100-9                            |       |             |           |          |         |
| SSOC  | 4           | SUL                            |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          | SOIR                   |                   |      |          |          |      |          |        |                               |   |           |            | <b>JONE</b>                      |       |             |           |          |         |
| BASTAGARIUS AND ASSOCIATED SPECIES<br>MASTER LIST | <b>&gt;</b> | TAGAI                          |                |      |                   |                               |          |        | ADEC   |        |             |           |          |       |          | ENT        |          | CX. (MEL.) BASTAGARIUS | NKAR              | ZVAE |          |          |      |          |        |                               |   |           |            | EST 1                            |       |             |           |          |         |
| RIUS  |             | BAS                            |                |      |                   | ANG                           |          |        | Ž  |        |             |           |          |       |          | EMERGENT   |          | ) BAS                  | 101               | -    |          |          |      |          |        | ANG                           |   |           |            | NEAF                             |       | _           |           |          |         |
| STAGA   | ·<br>:      | (MEL.                          | α.             | ⋖    | 3                 | 1977<br>IN HU                 | 23       | }      | 7  | :<br>} | <u>ğ</u>    | A B Y     | 2        |       | <b>-</b> | GED;       |          | (MEL.                  | 5 AN              | 770. | •        | <b>.</b> | t    | Ä        |        | 1977<br>IN HU                 |   | ţ         | OVO        | CE 10                            |       | 호<br>:      | A CT      | Z        | ۵       |
| 89<br>A   | 2v          | MR<br>5 CX. (MEL.) BASTAGARIUS | ECU<br>ECUADOR | PUYO | 12 KM W<br>001250 | 09 MAY 1977<br>YIAU-MIN HUANG |          | VALLEY | STREAM<br>DISTANCE FROM NEADEST MOME 100-699 | LARGE  | GROUND POOL | TEMPORARY | STAGNANT | CLEAR | FRESH    | SUBMERGED: | •        | Š.                     | MR (NYS ) TOTAKAR | E    | ECU      | PASTAZA  | PUYO | 40 KM NE | 000200 | 11 MAY 1977<br>YIAU-MIN HUANG |   | A 1 1 4 A | ALONG BOAD | DISTANCE TO NEAREST HOME 100-999 | SMALL | GREUND POOL | TEMPORARY | STAGNANT | COLORED |
|   |             |                                |                |      |                   |                               |          |        |  |        | _           | •         |          | _     |          |            | 2        |                        |                   | -    |          |          |      | -        | _      |                               |   |           |            | _                                |       | _           |           |          | _       |
|   | C LINE      | 22                             |                | 55   |                   |                               | 9        |        | 5 5  | 5      | 5 6         | 5 5       |          |       | 5 5      | 5          | č        |                        | 5 5               | 5    | 53       | 5 6      |      | -        |        | 55                            |   | 3 3       |            |                                  |       | 5 6         | 5 6       | 2        | 5       |
|   | CATEG       | 600                            | 010            | 015  | 030               | 055                           | 060      | 120    | 165  | 200    | 205         | 220       | 225      | 230   | 250      | 275        | 600      | 605                    | 600               | 000  | 005      | 2 0      | 025  | 630      | 020    | 055                           |   | 9 6       | 99         | 170                              | 200   | 205         | 220       | 225      | 235     |
|   | SERIAL      | 3802                           | 5180           |      |                   |                               | 5190     | }      |  |        |             |           |          |       |          |            | 7.10K    |                        | 5196              |      | 5450     |          |      |          |        |                               | 9 | 2550      |            |                                  |       |             |           |          |         |
| 2   | SEI         | 00003802                       | 00005180       |      |                   |                               | 00005190 |        |  |        |             |           |          |       |          |            | 00005195 |                        | 00005196          |      | 00005450 |          |      |          |        |                               |   | 90000480  |            |                                  |       |             |           |          |         |
| 9/10/   |             |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
| DATE: 02/07/80                                    |             |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |
| DAT   |             |                                |                |      |                   |                               |          |        |  |        |             |           |          |       |          |            |          |                        |                   |      |          |          |      |          |        |                               |   |           |            |                                  |       |             |           |          |         |

| 02/01/80 |  |         | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST   | PAGE NO: |
|----------|--|---------|--|----------|
| SERIAL   | CATEG                                  | LINE    | 2V3V4V5V6V7  |          |
| 00005460 | 250<br>270<br>275<br>285               | 5555    | FRESH<br>Scarce<br>Submerged; Emergent<br>Green  |          |
| 00005465 | 609<br>605                             | 55      | MR<br>1 CX. (MEL.) BASTAGARIUS   |          |
| 00005466 | 909<br>909                             | 22      | MR<br>2 CX. (CUX.) SPS.  |          |
| 00005467 | 609                                    | 22      | MR<br>3 UR. (URA.) SPS.  |          |
| 00005540 | 000<br>010<br>015                      | 2222    |  |          |
|          | 030<br>050<br>055<br>070               | 2222    | 1.5 KM S<br>000510<br>13 May 1977<br>Yiau-min Huang  |          |
| 00005550 | 090<br>120<br>200<br>200<br>205        | 22222   | VALLEY<br>WATER HYACINTH: EICHORNIA<br>MEDIUM<br>POND: LAKE                                  |          |
|          | 220<br>220<br>220<br>220<br>270<br>570 | 5555555 | FULL SUN PERMANENT STAGNANT CLEAR FRESH ABUNDANT SUGMERGED; EMERGENT IR 109a ENTERED AS 109. |          |
| 00005555 | 605<br>605<br>610<br>640               | 2222    | MR<br>1 AN. (NYS.) RANGELI<br>001 *** *** *** *** *** ***                                    | •        |
| 00005556 | 600                                    | 22      | MR<br>2 CX. (MEL.) BASTAGARIUS   |          |
| 00005557 | 600<br>605                             | 55      | MR<br>3 an. (nys.) Triannulatus  |          |
| 00005558 | 600<br>605                             | 55      | MR<br>4 CX. (MEL.) BATESI  |          |

|             |  |   |   |   |  | ГН<br>977.   |   |
|-------------|--|---|---|---|--|--|---|
| 2V3V4V5V6V7 | ECU<br>ECUADOR<br>NAPO<br>32 KM S<br>300700<br>13 MAY 1977<br>YIAU-MIN HUANG | VALLEY ALONG ROAD LARGE GROUND POOL; POND-LIKE GROUND POOL FULL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SUBMERGED; EMERGENT IR 105 RECORDED AS MR 1.                      | MR<br>1 CX. (MEL.) BASTAGARIUS<br>*** *** *** 001 001 *** ***<br>S. SIRIVANAKARN  | MR<br>2 AN. (NYS.) RANGELI<br>MR<br>3 CX. (MEL.) DUNNI  | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>01 YO<br>000953<br>05 MAY 1977<br>YIAU-MIN HUANG  | 28<br>COL NO 28 IS A MIXED COLLECTION, NUMBER NOT CERTAIN BUT WII<br>DEFINITE ASSOCIATED SKINS, ACTUAL DATE LISTED IS 5-9 MAY 19   | MR<br>1 AN. (NYS.) TRIANNULATUS<br>MR   |
| LINE        | 2222222  | 555555555555555555555555555555555555555   | 2222  | 22 22   | 2222222  | 222  | 22 2  |
| CATEG       | 005<br>010<br>015<br>025<br>030<br>050<br>055                                | 090<br>120<br>120<br>200<br>220<br>220<br>220<br>220<br>270<br>270  | 600<br>605<br>610<br>640  | 605<br>605<br>605<br>605  | 000<br>010<br>010<br>010<br>010<br>010<br>010  | 090<br>400   | 600   |
| SERIAL      | 00005820   | 00002830  | 000058.15   | 00005836  | 00008170   | 00006180   | 00006181  |
|             | CATEG LINE2V3V4V5V6V7V   | CATEG LINE2V3V4V5V6V7V<br>005 01 ECUADOR<br>010 01 ECUADOR<br>010 01 NAPO<br>025 01 TENA<br>030 01 32 KIA S<br>050 01 200700<br>050 01 13 MAY 1977<br>070 01 YIAU-MIN HUANG | CATÉG LINE2V3V4V5V6V7V  005 01 ECU 010 01 ECU 010 01 ECU 010 01 ECU 025 01 TENA 030 01 32 KIA S 050 01 32 KIA S 050 01 32 KIA S 050 01 13 MAY 1977 070 01 YIAU-MIN HUANG 090 01 | CATÉG LINE2V3V4V5V6V7V  005 01 ECUADOR  015 01 NAPO  025 01 TENA  030 01 30 YIR S  050 01 20 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  090 01 ALONG ROAD  200 01 LARGE  201 01 TEMPORARY  220 01 TEMPORARY  220 01 TEMPORARY  220 01 TEMPORARY  230 01 TEMPORARY  230 01 TEMPORARY  250 01 TEMPORARY  250 01 TEMPORARY  250 01 TEMPORARY  250 01 TEMPORARY  250 01 TEMPORARY  260 01 IR 105 RECORDED AS MR 1.  600 01 MR  605 01 1 CX. (MEL.) BASTAGARIUS  610 01 *** *** *** *** *** *** *** *** ** | CATÉG LINE2V3V4V5V6V7V  005 01 ECU 010 01 ECUADOR 015 01 NADO 020 01 32 KM S  050 01 32 KM S  050 01 32 KM S  050 01 32 KM S  050 01 ALRGE 120 01 YIAU-MIN HUANG 090 01 ALRGE 205 01 GROUND POOL: POND-LIKE GROUND POOL 200 01 TEMPORARY 225 01 STAGNAN I 225 01 STAGNAN I 226 01 IR 105 RECORDED AS MR 1.  600 01 MR 605 01 WRS. SIRIVANAKARN 605 01 A.************************************ | CATÉG LINE2V3V4V5V6V7V  005 01 ECU  010 01 ECU  025 01 ECU  026 01 32 KA S  026 01 32 KA S  027 00 01 32 KA S  028 01 13 MAY 1977  030 01 13 MAY 1977  040 01 14 MGG  050 01 14 MGG  050 01 14 MGG  050 01 14 MGG  050 01 15 MR  050 01 EUL SUM  050 01 EUL SUM  050 01 EUL SUM  050 01 EUL SUM  050 01 EUL SUM  060 01 MR  060 01 MR  060 01 MR  060 01 MR  060 01 MR  070 01 MR | CATEG LINE2V3V4V5V6V7V  005 01 ECU 010 01 ECU 020 01 NAPO 020 01 1 ENA 020 01 32 Kis S 050 01 32 Kis S 050 01 1 ALUNG POOL: POND-LIKE GROUND POOL 050 01 1 ALUNG POOL: POND-LIKE GROUND POOL 050 01 1 LANGE 050 01 ALUNG POOL: POND-LIKE GROUND POOL 050 01 LANGE 050 01 LA |

The second

| Ö  |               |                          |                |            |          |        |              |              |          | •      |       |             |           |          | :     |     |                     |                     |   |                                |                            |          |         |         |   |        |             |   |           |                                      |         |             |          |          |                |  |
|--|---------------|--------------------------|----------------|------------|----------|--------|--------------|--------------|----------|--------|-------|-------------|-----------|----------|-------|-----|---------------------|---------------------|---|--------------------------------|----------------------------|----------|---------|---------|---|--------|-------------|---|-----------|--------------------------------------|---------|-------------|----------|----------|----------------|--|
| PAGE NO:                                       | 7V            |                          |                | •          |          |        |              |              |          |        | :     |             |           | -        |       |     |                     |                     |   |                                |                            | • •      |         |         |   |        |             |   |           |                                      |         |             |          |          |                |  |
| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2V3V4V 5V6V7V | 2 CX. (MEL.) BASTAGARIUS | ECU<br>ECUADOR | PASTAZA    | 1.5 KB S | 000891 | -55 EAY 1977 | TENDER TOANS | 29       | VALLEY | LARGE | GROUND POOL | TEMPORARY | STAGNANT | FREST |     | SUBMERGED; EMERGENT | MR (1861 ) DII OSHS |   | MR<br>2 CX. (MEL.) BASTAGARIUS | MR<br>3 AN. (NYS.) TRINKAE | ECU      | ECUADOR | PASTAZA | 7070<br>7. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. | 000100 | 17 MAY 1977 |   | VALLEY 31 | DISTANCE FROM NEAREST HOME 100-999 M | 1'i qws | GROUND POOL | TOLL SON | STAGNANT | CLEAR<br>FRESH |  |
|  | LINE          | 5                        | 55             | 5 5        | 5 5      | 5      | 2 5          | 5            | 5        | 5 5    | 5     | 5           | 5 3       | 5 6      | 5     | 5   | 5                   | 5 5                 | 5 | 22                             | 22                         | 6        | 5       | 5 3     | 5 5   | 5      | 53          | 5 | 5 2       | 5 5                                  | 5       | 5 6         | 5 5      | 5        | 5 <b>5</b>     |  |
|  | CATEG         | 909                      | 000            | 010<br>810 | 030      | 020    | 055          | 0/0          | 050      | 120    | 200   | 205         | 220       | 225      | 250   | 270 | 275                 | 600                 | 3 | 600<br>605                     | 600                        | 002      | 010     | 015     | 070   | 020    | 055         |   | 080       | 170                                  | 200     | 0.00        | 220      | 225      | 230            |  |
| DATE: 02/07/80                                 | SERIAL        | 00006182                 | 00006210       |            |          |        |              |              | 00006220 |        |       |             |           |          |       |     |                     | 00006225            | , | 00006226                       | 00006227                   | 00000830 |         |         |   |        |             |   | 00000840  |                                      |         | •           |          |          |                |  |
| DATE:  |               |                          |                |            |          |        |              |              |          |        |       |             |           |          |       |     |                     |                     |   |                                |                            |          |         |         |   |        |             |   |           |                                      |         |             |          |          |                |  |

| BASTAGARIUS AND ASSOCIATED  SERIAL CATEG LINE2V3V4V  DOCESSA 270 01 SCARCE  DOCESSA 270 01 SCARCE  DOCESSA 270 01 SCARCE  DOCESSA 270 01 SCARCE  DOCESSA 270 01 SCARCE  DOCESSA 270 01 TCX. (MEL.) PILOSUS  DOCESSA 270 01 TCX. (MEL.) PILOSUS  DOCESSA 270 01 TCX. (MEL.) PILOSUS  DOCESSA 270 01 TCX. (MEL.) PILOSUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 TCX. (MEL.) BASTAGARIUS  DOCESSA 270 01 MR | S PAGE NO:                                     | 5v6v7v |                               |            |            |          |          |       |      |                               | •        |        |     |     |                         |           |                   |       |                                 |             |          |           |         |   |                  |             |            |                        |
|---|--|--------|-------------------------------|------------|------------|----------|----------|-------|------|-------------------------------|----------|--------|-----|-----|-------------------------|-----------|-------------------|-------|---------------------------------|-------------|----------|-----------|---------|---|------------------|-------------|------------|------------------------|
| SERIAL CATEGO<br>0006845 E00<br>0006846 E00<br>0006847 E00<br>0007150 005<br>010<br>010<br>015<br>025<br>025<br>025<br>025<br>025<br>025<br>025<br>02   | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 3V4V   | SCARCE<br>SUBMERGED; EMERGENT | CX. (MEL.) | AN. (NYS.) | <u>.</u> | ECUADOR  | 9     |      | 19 MAT 1977<br>YIAU-MIN HUANG |          | VALLEY |     |     | GADOND FOOL<br>FULL SUN | PERMANENT | STAGNANI<br>CLEAR | FRESH | ABUNDANI<br>Submerged: Emergent | 107 ENTERED | MAR      | ) TRINKAE | 700 700 | A. C. C. C. C. C. C. C. C. C. C. C. C. C. | *** *** *** ***  | M. E. FARAN | CX. (MEL.) | MR (CX 1461 ) 01106116 |
| SERIAL<br>0006845<br>0006846<br>0006847<br>0007150<br>0007180   |  | LINE   | 55                            | 55         | 22         | 55       | 55       | 5 6 6 | 553  | 2 2                           | 5        | 53     | 5 5 | 5   | 5 5                     | 5         | 55                | 5     | 5 5                             | 5           | 5        | 5 3       | 55      | 10  | 55               | 5           | 22         | 5 5                    |
|   |  | CATEG  | 270                           | 605<br>605 | 600<br>605 | 600      | 010      | 025   | 0000 | 070                           | 050      | 120    | 170 | 200 | 202<br>203<br>503       | 220       | 230               | 250   | 276                             | 500         | 600      | 605       | 640     | 600                                       | 6<br>0<br>0<br>0 | 640         | 600        | 630<br>505             |
| Y .   | DATE: 02/07/80                                 | SERIAL | 00006840                      | 00006845   | 00006846   | 00006847 | 00007150 |       |      |                               | 00007160 |        |     |     |                         |           |                   |       |                                 |             | 00007170 |           |         | 00007180                                  |                  |             | 00007182   | 00007183               |

| DATE: 02/07/80 | 9        |   |      | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST   | PAGE NO: | ë<br>ë |
|----------------|----------|---|------|--|----------|--------|
|                | SERIAL   | CATEG                                   | LINE | 2V3V4V5V6V77V  |          |        |
|                | 00007150 | 005                                     | 5 6  | ECU  |          |        |
|                |          | 015                                     | 5 5  |  |          |        |
|                |          | 025                                     | 5    | • Puyo   |          |        |
|                |          | 030                                     | 5 3  | 1.5 KM S   |          |        |
|                |          | 022                                     | 5 5  | 19 MAY 1977  |          | ٠      |
|                |          | 070                                     | 5    |  |          |        |
|                | 00007440 | 060                                     | 5    | 33   |          |        |
|                |          | 120                                     | 5    | VALLEY   |          |        |
|                |          | 136                                     | 5    |  |          |        |
|                |          | 27.                                     | 5    | DISTANCE FROM NEAREST HOME 100-999 M   |          |        |
|                |          | 200                                     | 5 6  | SMALL: LONG  |          |        |
|                |          | 202                                     | 5 6  | GROUND FOOL; WHERE INACK   |          |        |
|                |          | 220                                     | 5 6  | TO COLUMN TO COL |          |        |
|                |          | 225                                     | 5    | STAGNANT   |          |        |
|                |          | 230                                     | 5    | CLEAR  |          |        |
|                |          | 250                                     | 5    | FRESH  |          |        |
|                |          | 270                                     | 5 3  | SCARCE   |          |        |
|                |          | 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 5 8  | SOCIETY PERSONAL   |          |        |
|                |          | 200                                     | 5 5  | IR 102 DAMAGED.  |          |        |
|                |          | . (                                     | : ;  | •  |          |        |
|                | 00007450 | 003                                     | 5 8  | ***  |          |        |
|                |          | 610                                     | 5 5  | 001 + +++ +++ +++ +++ +++ +++  |          |        |
|                |          | 640                                     | 5    |  |          |        |
|                | 0372000  | 9                                       | į    | 0  |          |        |
|                | 0000/400 | 9 6                                     | 5 5  | PR 2 CX (MEL.) BASTAGADINS   |          |        |
|                |          | 610                                     | 5    | *** 002 *** *** *** *** ***  |          |        |
|                |          | 640                                     | 2    | S. SIRIVANAKARN  |          |        |
|                | 00007461 | 600                                     | 10   | 22   |          |        |
|                |          | 605                                     | 5    | 3 CX. (NEL.) PILOSUS   |          |        |
|                | 00007150 | 900                                     | 5    | Ecu  | -        |        |
|                |          | 0 :                                     | 5    | ECUADOR  |          |        |
|                |          | 0<br>0<br>0                             | 5 8  | PASIAZA  | -        |        |
|                |          | 030                                     | 5 5  | 25 TS TS TS TS TS TS TS TS TS TS TS TS TS  |          |        |
|                |          | 020                                     | 50   | 168000   |          |        |
|                |          | 055<br>070                              | 5 E  | 19 MAY 1977<br>YIAU-NIN HUANG  |          |        |
|                |          | ,                                       |      |  |          |        |
|                | 00009320 | 090                                     | 5 5  | VALLEY   |          |        |
|                |          | 136                                     | 5    | SCRUB  |          |        |
|                |          | 170                                     | 5    | DISTANCE FROM NEAREST HOME 100-899 M   |          |        |

| PAGE   |              |   | •  |  |   | ,   |                            |                                      |
|--|--------------|---|--|--|---|---|----------------------------|--------------------------------------|
| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2V3V4V5V6V7V | SMALL: LONG GROUND POOL: WHEEL TRACK FULL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SUBMERGED: EMERGENT | MR<br>1 CX. (MEL.) PILOSUS<br>MR<br>2 CX. (MEL.) BASTAGARIUS | MR<br>3 AN. (NYS.) RANGELI<br>MR<br>4 AN. (NYS.) TRINKAE | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>23 KM SE<br>0000770<br>19 MAY 1977<br>YIAU-MIN HUANG | 35 YALLEY DISTANCE FROM NEAREST HOME 100-999 M LARGE GROUND POOL FULL SUN TEMPORARY STAGNANT MUDDY FRESH SCARCE SUBMERGED; EMERGENT | MR<br>1 CX. (MEL.) PILOSUS | MR<br>2 CX. (MEL.) BASTAGARIUS<br>MR |
|  | LINE         | 22222222  | 22 22  | 22 22  | 2222222   | 22222222222   | 55                         | 22 2                                 |
|  | CATEG        | 200<br>205<br>210<br>220<br>225<br>230<br>250<br>275  | 600<br>605<br>600<br>505                                     | 605<br>605<br>600<br>605                                 | 000<br>010<br>020<br>030<br>050<br>070  | 090<br>120<br>170<br>200<br>200<br>220<br>220<br>220<br>220<br>270  | 600                        | 600<br>505<br>506                    |
| 03/01/80                                       | SERIAL       | 00009320  | 00009325   | 00009327   | 00010180  | 000101000   | 00010191                   | 00010193                             |

| :: 02/07/80 | •                                      |   |  | PAGE NO: |
|-------------|--|---|--|----------|
| SERIAL      | CATEG LINE                             | LINE                                    | 2V3V4V5V6V7V   |          |
| 00010193    | 909                                    | 5                                       | 3 AN. (NYS.) RANGELI   |          |
| 00010520    | 005<br>015<br>025<br>045<br>050<br>050 | 2222222                                 | ECU<br>ECJADOR<br>PASTAZA<br>PUYO<br>01 28S. 377 59W<br>000953<br>15 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00010530    | 060                                    | 5                                       | 36   |          |
| 000 10540   | 600<br>605<br>610<br>640               | 2222                                    | MR<br>1 Cx. (MEL.) BASTAGARIUS<br>*** *** *** 1 *** ** ***<br>5. SIRIVANAKARN  |          |
| 00012490    |  | 55                                      | ECU<br>ECUADOR   |          |
|             | 015<br>025<br>030<br>055<br>070        | 2222                                    | NAPO<br>TENA<br>11.7 KM SW<br>25 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00012500    |  | 555555555555555555555555555555555555555 | VALLEY SCRUB ALONG ROAD DISTANCE FROM NEAREST HOME 100-999 M LARGE GROUND POOL FULL SUN TEMPORARY STAGNANT COLORED FRESH ABUNDANT SUBMERGED; EMERGENT MR 1 CX. (MEL.) BATESI *** *** *** *** *** 001 *** *** |          |
| 00012511    |  | 2 22 2                                  | S. SIRIVANAKARN<br>MR<br>2 An. (NYS.) RANGELI<br>MR  |          |
|             |  | 6                                       | 3 UR. (URA.) SPS.  |          |

| PAGE NO:                                       |            |                            |                            |                         | . •                            |   |   |   |                         |                            |                            | ·                              |                         |
|--|------------|----------------------------|----------------------------|-------------------------|--------------------------------|---|---|---|-------------------------|----------------------------|----------------------------|--------------------------------|-------------------------|
| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2V3V4V5V6V | MR<br>4 CX. (MEL.) PILOSUS | MR<br>5 AN. (NYS.) TRINKAE | MR<br>6 CX. (CUX.) SPS. | MR<br>7 CX. (MEL.) BASTAGARIUS | ECU<br>ECUADOR<br>NAPO<br>TENA<br>11.7 KM SW<br>25 MAY 1977<br>YIAU-MIN HUANG | VALLEY<br>SCRUB<br>ALONG ROAD<br>MESTANCE FROM NEAREST HOME 100-999 M<br>MEDIUM: LONG | FULL SUN TEMPORARY STAGNANT COLORED FRESH AEUNDANT SUBMERGED; EMERGENT GREEN: BROWN | MR<br>1 CX. (CUX.) SPS. | MR<br>2 CX. (MEL.) PILOSUS | MR<br>3 An. (NYS.) RANGELI | MR<br>4 CX. (MEL.) BASTAGARIUS | MR<br>5 UR. (URA.) SPS. |
|  | LINE       | 22                         | 22                         | 22                      | 22                             | 222222  | 222222  | 2222222   | 22                      | 22                         | 22                         | 22                             | 22                      |
|  | CATEG      | 600                        | 600                        | 600                     | 600<br>605                     | 005<br>010<br>015<br>025<br>030<br>070  | 090<br>120<br>136<br>170<br>200<br>205  | 210<br>225<br>235<br>250<br>270<br>275<br>285                                       | 600                     | 600<br>605                 | 600<br>605                 | 606<br>605                     | 50 <b>5</b>             |
| DATE: 02/07/80                                 | SERIAL     | 00012513                   | 00012514                   | 00012515                | 00012516                       | 00012490  | 00013130  |   | 00013131                | 00013132                   | 00013133                   | 00013134                       | 00013135                |

| PAGE   | .6V7V        |                           |          |              |                    |                               |          |     |   |       | ,                       |           |          |       |                               |     |                 | . •              | •                         |          | :                        |                |                  |         |                       |                |          |     |                                  |
|--|--------------|---------------------------|----------|--------------|--------------------|-------------------------------|----------|-----|---|-------|-------------------------|-----------|----------|-------|-------------------------------|-----|-----------------|------------------|---------------------------|----------|--------------------------|----------------|------------------|---------|-----------------------|----------------|----------|-----|----------------------------------|
| BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | 2V3V4V5V6V7V | MR<br>6 CX. (MEL.) BATESI | ECUADOR  | NAPO<br>Tena | 13 KR SW<br>001000 | 25 MAY 1977<br>YIAU-MIN HUANG | 64       | >   | SCRUB<br>DISTANCE FROM NEAREST HOME 100-999 M | SMALL | GROUND POOL<br>FULL SUN | TEMPORARY | STAGNANT | FRESH | SCARCE<br>Submerged: Emergent |     | EX. (CUX.) SPS. | MR<br>2 PS. SPS. | MR<br>3 CX (MFL.) PILOSUS | æ        | 4 CX. (MEL.) BASTAGARIUS | ECU<br>ECUADOR | NAPO<br>TENA     | 25 XX C | 001000<br>25 May 1977 | YIAU-MIN HUANG | 43       |     | CISTANCE PROMINERS TORE TOPING 4 |
|  | LINE         | 22                        | 22       | 22           | 55                 | 55                            | 5        | 5   | <del>5</del> <del>5</del>                     | 5     | 5 5                     | 2         | 53       | 5 5   | 2 2                           | ; ; | 5 5             | 22               | 2.5                       | 5        | 5                        | 2 2            | 5 5              | 5       | 5 5                   | 5              | 5 5      | 553 | 5                                |
| •  | CATEG LINE   | 600                       | 0005     | 015          | 030                | 055                           | 060      | 120 | 136   | 200   | 205                     | 220       | 225      | 250   | 270                           |     | 600<br>605      | 600<br>605       | 600                       | 600      | 6.05                     | 005<br>010     | 0<br>7<br>7<br>7 | 030     | 020                   | 070            | 060      | 136 | 170                              |
| DATE: 02/07/80                                 | SERIAL       | 00013136                  | 00013380 |              |                    |                               | 00013400 |     |   |       |                         |           |          |       |                               | •   | 00013401        | 00013402         | 00013403                  | 00013404 |                          | 00013390       |                  |         |                       |                | 00013870 |     |                                  |

| E: 02/07/80 |          |  |             | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST  | PAGE NO |
|-------------|----------|--|-------------|---|---------|
|             | SERIAL   | CATEG  | LINE        | 2V3V4V5V6V7   | :       |
| ă           | 00013870 | 200<br>210<br>220<br>220<br>225<br>270<br>275                      | 555555555   | SMALL: LONG GROUND POOL: WHEEL TRACK FULL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SCARCE SCARCE GREEN   |         |
| ō ŏ         | 00013871 | 600 500 600 600 600 600 600 600 600 600                            | 55 55       | MR<br>1 CX. (MEL.) BASTAGARIUS<br>MR<br>2 AN. (NYS.) TRINXAE  |         |
| õ           | 00013990 | 000<br>010<br>015<br>025<br>050<br>070                             | 2222222     | ECUADOR<br>NAPO<br>TENA<br>TENA<br>00510<br>27 MAY 1977<br>YIAU-MIN HUANG   |         |
| ŏ           | 00014000 | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200 | 22222222222 | 44 VALLEY WATER HYACINTH: EICHORNIA DISTANCE FROM NEAREST HOME 10-99 M MEDIUM POND: LAKE FULL SUN FERMANENT STAGNANT CLEAR FRESH ABUNDANT SUBMERGED: EMERGENT WATER HYACINTH: EICHORNIA |         |
| 5           | 00014010 | 600<br>603<br>610<br>640   | 2222        | MR<br>1 CX, (MEL.) BASTAGARIUS<br>*** *** *** *** 001 *** *** ***<br>5. SIRIVANAKARN  |         |
| ŏ ŏ         | 00014011 | 600<br>605<br>605<br>605   | 22 22       | MR<br>2 CX. (MEL.) BATESI<br>MR<br>3 AN. (NYS.) RANGELI   |         |

| DATE: 02/07/80 | /80      |            |      | BASTAGARIUS AND ASSOCIATED SPECIES MASTER LIST | PAGE NO: | ••• |
|----------------|----------|------------|------|--|----------|-----|
|                | SERIAL   | CATEG      | LINE | 2V3V4V5V6V7V                                   |          |     |
|                | 00014370 | 900        | 5    | ECU  |          |     |
|                |          | 010        | 5    | ECUADOR  |          |     |
|                |          | 615        | 2 5  | NAPO   | ٠        |     |
|                |          | 070        | 5 3  |  |          |     |
|                |          | 0.50       | 5 5  | 6 FX -   |          |     |
|                |          | 055        | 5 6  | 26 MAY 1977                                    |          |     |
|                |          | 070        | 5    | YIAU-MIN HUANG                                 | *        |     |
|                | 00014380 | 060        | 10   | 24   |          |     |
|                |          | 120        | 5    | VALLEY   |          |     |
|                |          | 170        | 5    | DISTANCE FROM NEAREST HOME 10-99 M             |          |     |
|                |          | 200        | 5    | SMALL  |          |     |
|                |          | 205        | 5    | POND: LAKE                                     |          |     |
|                |          | 210        | 5    | FULL SUN                                       |          |     |
|                |          | 220        | 5    | TEMPORARY                                      |          |     |
|                |          | 225        | 5    | STAGNANT                                       |          |     |
|                |          | 235        | 5    | COLORED  |          |     |
|                |          | 250        | 5    | FRESH  |          |     |
|                |          | 270        | 5    | SCARCE   | :        |     |
|                |          | 275        | 5    | SUBMERGED; EMERGENT                            |          |     |
|                | 00014381 | 909        | 6    |  |          |     |
|                |          | 605        | 5    | 1 CX. (MEL.) BASTAGARIUS                       |          |     |
|                | 00014382 | 605<br>605 | 55   | MR<br>2 an. (nys.) Rangeli                     |          |     |
|                | 00014383 | 909        | 5    |  |          |     |
|                |          | 605        | 55   | 3 CX. (MEL.) BATESI                            |          |     |
|                | 00014384 | 600        | 22   | MR<br>4 TIPULIDAE                              |          |     |
|                | 00014385 | 600        | 22   | MR<br>5 CX. (CUX.) SPS.                        |          |     |
|                |          |            |      |  |          |     |

## BASTAGARIUS AND ASSOCIATED SPECIES

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED \* 0000853 - NUMBER OF RECORDS PRINTED \* 0000155

NUMBER OF LINES PROCESSED \* 0000853 - NUMBER OF RECORDS PROCESSED \* 0000155

- 44

DATE: 02/11/80

and a company of the con-

| 4V5V6V7V | List the locality data, general environment, and immature habitats for all the collections which include An. (Nys.) trinkae from Ecuador.  Where has Anopheles (Nys.) trinkae been collected in Ecuador? Plot on map.  | <b>3</b>   |  | 11 656.   |          |
|----------|--|--|--|---|----------|
| 2v       | ECU List the found of the following pays and so that 1977 be where he was a fine for the following pays and the following the fo | SCRUB ALONG ROAD; NOT MAIN ROAD DISTANCE FROM NEAREST HOME 100-999 LARGE POND; LAKE FULL SUN TEMPORARY FRESH SUGMERGED; EMERGENT | MR<br>1 AN. (NYS.) TRINKAE<br>001 001 *** *** *** ***<br>M. E. FARAN<br>ECUADOR<br>PASTAZA<br>PUYO<br>01 28S. 077 59W<br>000953<br>05 MAY 1977<br>YIAU-MIN HUANG | SCRUB STREAM DISTANCE FROM NEAREST HOME 100-999 SMALL STREAM PCOL FULL SUN TEMPORARY CLEAR FRESH SUMMERGED 2 ANOPHELES LARVAE DIED. | 3.<br>3. |
| LINE     | 2222222  | 5555555555   | 5555 555555  | 55555555555   | 5        |
| CATEG    | 005<br>010<br>015<br>015<br>015<br>010<br>010  | 090<br>136<br>150<br>200<br>200<br>220<br>220<br>248   | 600<br>610<br>640<br>640<br>640<br>640<br>640<br>640<br>640<br>640<br>640<br>64  | 136<br>136<br>165<br>165<br>165<br>170<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12                         | 900      |
| SERIAL   | 00000000   | 000000110  | 000000120  | 000000000000000000000000000000000000000   | 00000210 |

| O<br>SERIAL CATEG  |
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|  |
| 01 ECUADOR<br>01 ECUADOR<br>01 PASTAZA<br>01 PUYO  |
|  |
|  |
| _  |
| 01 FRESH<br>01 SUBMERGED; FLDATING; EMERGENT<br>01 GREEN<br>01 IR 1008 AND 100b ENTERED AS 100 AND 101. IR 100b WITH |
| 01 MR<br>01 4 AN.  |
| 01 ECUADOR<br>01 ECUADOR<br>01 PASTAZA<br>01 PUYO<br>01 20 KM N<br>01 001000<br>01 06 MAY 1977<br>01 YIAU-MIN HUANG  |
|  |
| 01 POND 01 FULL SUN 01 PERMANENT 01 SLOW 01 FRESH 01 FRESH 01 SUBMERGED;   |
|  |

|   | :      |                    |             |  |  |   |
|---|--------|--------------------|-------------|--|--|---|
|   |        |                    |             |  |  | <b>3</b><br>6<br>6  |
|   |        |                    |             |  |  | 6-00  |
|   | >      |                    |             |  |  | OWE   |
| DOR   | .6     |                    |             |  |  | Ĭ<br>₩  |
| ECUA  | V6V7V  |                    |             |  | •  | EARE  |
| LOCALITY DATA AEOUT TRINKAE COLLECTED IN ECUADOR<br>Master List | in.    |                    |             |  | <b>3</b><br>0  | SUGARCANE; DISTANCE FROM NEAREST HOME 100-999               |
| ECTE  | ٠٠5    | <b>3</b>           |             |  | 66-00-   | 2)<br>m   |
| 21<br>ST  | :      |                    |             |  | * 10 11 11 11 11 11 11 11 11 11 11 11 11   | STAN  |
| KAE<br>R LI   | 4      | ENTERED IN         |             |  | 2. * *   | 10 :  |
| TRIN  | v4     |                    | KAE         |  | NT NT S 112.   | CANE  |
| TUG!  | e.     | AND C              | TRINKAE     | 9  | 9 VALLEY SCRUB ALONG ROAD DISTANCE FROM NEAREST HOME 100-999 SMALL POND; LAKE; GROUND POOL PARTIAL SHADE TEMPORARY STAGNANT COLORED FRESH SUBMERGED; EMERGENT GREEN IR 112a ENTERED AS 112. MR MR F. FARAN E. FARAN E. FARAN ECUADOR PASTAZA PUNO O01250 O7 MAY 1977   | SUGAR   |
| Z<br>Z  | : >    | ė.                 | (NYS.)      | ECUADOR<br>PASTAZA<br>PUYO<br>39 KM N<br>001750<br>06 MAY 1977 | VALLEY SCRUB ALONG ROAD DISTANCE FROM I SMALL POND; LAKE; GR PARTIAL SHADE STAGNANT COLORED FRESH SUBMERGED; EMEI GREEN IR 112a ENTEREI MR MR E. FARAN E. FARAN E. FARAN H. E. FARAN A. KM NE ECUADOR FOUND ECUADOR FOUND ECUADOR FOUND FO |   |
| P   | 2      | SCARCE<br>IR 163a, |             | DOR<br>AZA<br>SON<br>AY<br>MIN                                 | VALLEY SCRUB ALCONG ROAD ALCOND: LAKE; PARTIAL SHA TEMPORARY TEMPORARY COLORED GREEN IR 112a ENTI AN. (NYS. *** 001 001 M. E. FARAN ECUADOR PASTAZA PASTAZA FAKM NE FOUTO FOUT | VALLEY<br>ALGNG ROAD<br>PLANTATION<br>SMALL<br>GROUND PGO   |
| ALIT  |        | SCARCE<br>IR 163   | MR<br>5 AN. | ECUADOR<br>PASTAZA<br>PUYO<br>39 KM N<br>001750<br>06 MAY      | VALLEY SCRUB ALCNG ROAD BLISTANCE FR SMALL POND; LAKE; PARTIAL SHAI TEMPORARY COLORED GREEN IR 112a ENTI AN. (NYS. *** 001 001 M. E. FARAN ECUADOR PASTAZA PASTAZA FKM NE 001250 07 MAY 1977 YIAU-HIN HU.  | VALLEY<br>ALGNG ROAD<br>PLANTATION;<br>SMALL<br>GROUND POOL |
| 707   | LINE   | 55                 | 55          | 5555555  | 555555555555555555555555555555555555555  | 55555   |
|   |        |                    |             |  |  |   |
|   | CATEG  | 290<br>500         | 600         | 000<br>010<br>010<br>020<br>050<br>050<br>050                  | 120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120   | 630<br>120<br>170<br>200<br>200<br>200                      |
|   | SERIAL | 290                | 322         | 060  | 1100360  | 089   |
| •   | SER    | 00000290           | 00000322    | 00001000   | 00001100   | 00001680  |
| 02/11/80  |        |                    | •           | •  |  | •   |
| 05/   |        |                    |             |  |  |   |

|   | v7v         |  |  |   |  |  |
|---|-------------|--|--|---|--|--|
| LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR<br>MASTER LIST | 2V3V4V5V6V7 | FULL SUN TEMPORARY STAGNANT STAGNANT FILESH SUBMERGED; EMERGENT GREEN; BROWN SCARCE TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4. | MR<br>1 AN. (NYS.) TRINKAE<br>002 001 001 *** *** ***<br>M. E. FARAN | ECU<br>ECUADGR<br>PASTAZA<br>PD VO<br>16 KW NE<br>001000<br>07 MAY 1977<br>YIAU-MIN HUANG | VALLEY SCRUB SCRUB SIZANCE FROM NEAREST HOME 100-999 M SMALL GROUND POOL FULL SUN TEMPORARY STAGNAN; STAGNAN; GROUNED FRESH SUCKERGED; EMERGENT GREEN; BROWN SCARCE IR 100a AND D ENTERED AS MR 1. | MR<br>2 AN. (NYS.) TRINKAE<br>ECUADOR<br>ECUADOR<br>PASTAZA<br>PUYO<br>16 KM NE<br>001000<br>07 MAY 1977<br>YIAU-MIN HUANG |
| 2   | LINE        | 55555555   | 2222   | 2222222   | 86999999999999   | 22 222222  |
|   | CATEG       | 210<br>220<br>220<br>230<br>272<br>290<br>500  | 600<br>640<br>640  | 005<br>010<br>025<br>030<br>050<br>050<br>070   | 090<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>12   | 600<br>605<br>0010<br>0010<br>0010<br>0010<br>0010<br>0010   |
| DATE: 02/11/80  | SERIAL      | 00001680   | 00001690   | 00002830  | 00002840   | 00002830   |

| LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR MASTER LIST | CATEG LINE2V3V4V5V6V7V | 190 01 VALLEY 165 01 STREAM 165 01 STREAM 170 01 STREAM 200 01 SMALL 205 01 GROUND POOL 210 01 FEMPORARY 220 01 TEMPORARY 230 01 TURBID; MUDDY 250 01 FRESH 270 01 SCARCE 500 01 IR 105 WITH BROKEN VIAL FOR P. | 600 01 MR<br>605 01 2 AN. (NYS.) TRINKAE | 005 01 ECU 010 01 ECUADOR 015 01 PASTAZA 025 01 PUYD 045 01 01 285. 077 59W 050 01 000953 055 01 08 MAY 1977 070 01 YIAU-MIN HUANG | 090 01 VALLEY 120 01 VALLEY 136 01 SCRUB 170 01 DISTANCE FROM NEAREST HOME 100-999 M 200 01 SWALL; LONG 205 01 GROUND POOL; WHEEL TRACK 210 01 FULL SUN 220 01 TEMPORARY 225 01 STAGNANT 230 01 CLEAR 250 01 FRESH 250 01 SUBMERGED; EMERGENT | 600 01 MR<br>605 01 2 AN. (NYS.) TRINKAE | 005 01 ECU 010 01 ECJADOR 015 01 PASTAZA 025 01 PUYO 045 01 00 28S. 077 59W 050 01 000953 055 01 08 MAY 1977 070 01 YIAU-MIN HUANG |
|--|------------------------|---|--|--|---|--|--|
| DATE: 02/11/80   | SERIAL CA              | 00000000000000000000000000000000000000  | 00002956 6<br>6                          | 00003250   | 00003260  | 00003271 6                               | 00003250   |

| : 02/11/80 |  | 2         | LCCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR<br>Master List   | PAGE NO |
|------------|--|-----------|---|---------|
| SERIAL     | CATEG  | LINE      | 2V3V4V5V6V7V  |         |
| 00005180   | 070  | 5         | YIAU-MIN HUANG  |         |
| 00005190   | 090<br>120<br>165<br>170   | 22222     | VALLEY<br>STREAM<br>DISTANCE FROM NEAREST HOME 100-999 M  |         |
|            | 220<br>220<br>220<br>220<br>220<br>270                                     | 55555555  | GROUND POOL<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>ABUNDANT<br>SUBMERGED; EMERGENT                       |         |
| 00005196   | 600  | 22        | MR<br>2 AN. (NYS.) TRINKAE  |         |
| 00006210   | 000<br>010<br>025<br>030<br>070  | 2222222   | ECU<br>ECUADOR<br>PASTAZA<br>1.5 KM S<br>000891<br>15 MAY 1977<br>YIAU-MIN HUKNG  |         |
| 00006220   | 00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00<br>00 | 555555555 | VALLEY DISTANCE FROM NEAREST MOME 100-999 M LARGE GROUND POOL STAGNARY STAGNANT SLIGHTLY FRESH ABUNDANT SUBMERGED; EMERGENT |         |
| 00006227   | 605<br>605   | 22        | MR<br>3 AN. (NYS.) TRINKAE  |         |
| 00006210   | 000<br>000<br>000<br>000<br>000<br>000<br>000                              | 2222222   | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>000891<br>15 MAY 1977<br>YIAU-MIN HUANG                                    |         |

| DATE: 02/11/80 |   | 9          | LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR NASTER LIST  | PAGE NO: |
|----------------|---|------------|---|----------|
| SERIAL         | CATEG   | LINE       | 2V3V4V5V6V7V  |          |
| 00006530       | 00000000000000000000000000000000000000  | 222222222  | 30 VALLEY DISTANCE FROM NEAREST HOME 100-999 M LARGE GRGUND POOL; POND-LIKE GROUND POOL STEMPORARY STAGNANT SLIGHTLY FRESH ABUNDANT SUBMERGED; EMERGENT |          |
| 00006540       | 600<br>605<br>610<br>640  | 2222       | MR<br>1 AN. (NYS.) TRINKAE<br>001 *** *** *** *** *** ***<br>M. E. FARAN  |          |
| 00006830       | 0000<br>0010<br>0010<br>0010<br>0010  | 9999999    | ECU<br>ECUADOR<br>PASTAZA<br>PUYD<br>4.3 KM E<br>001000<br>17 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00006840       | 20000000000000000000000000000000000000  | 2222222222 | VALLEY DISTANCE FROM NEAREST HOME 100-999 M SMALL SMALL SUAL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SUBMERGED; EMERGENT                              |          |
| 00006846       | 66<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>6 | 55 5555555 | MR<br>2 AN. (NYS.) TRINKAE<br>ECUADOR<br>FASTAZA<br>PUYO<br>1.5 KM S<br>000391<br>19 MAY 1977<br>YIAU-MIN HUANG   |          |

| CUADOR PAGE NO:   | V6V6   |  |  |  |   |  |          |
|---|--------|--|--|--|---|--|----------|
| LOCALITY DATA ABOUT TRINKAE CULLECTED IN ECUADOR<br>MASTER LIST | 23v4V5 | VALLEY SCRUZ SCRUZ DISTANCE FROM NEAREST HOME 100-999 M MEDIUM GROUND POOL FULL SUN FERMANENT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT STAGNANT REAR FRE | MR<br>1 AN. (NYS.) TRINKAE<br>012 *** *** 002 002 *** *** ***<br>M. E. FARAN | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>000891<br>19 MAY 1977<br>YIAU-MIN HUANG | VALLEY<br>SCRUB<br>DISTANCE FROM NEAREST HOME 100-999 M<br>SWALL; LONG<br>GROUND FOOL; WHEEL TRACK<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>SCARCE<br>SUBMERGED; EMERGENT<br>GREEN | MR<br>1 AN. (NYS.) TRINKAE<br>001 *** *** *** *** ***<br>M. E. FARAN |          |
| 2   | LINE   | 555555555555555555555555555555555555555  | 2222   | 2222222  | 355555555555555   | 2222 2   | 5        |
|   | CATEG  | 690<br>120<br>136<br>170<br>200<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>2   | 600<br>605<br>640  | 000<br>010<br>015<br>015<br>015<br>015<br>015<br>015                                     | 000<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120  | 600<br>610<br>640  | n<br>5   |
| DATE: 02/11/80  | SERIAL | 00007160   | 00037170   | 00007150   | 00007440  | 00007450   | 06170000 |

| DATE: 02/11/80 |     |            | 9    | :  | PAGE NO: | 5 |
|----------------|-----|------------|------|--|----------|---|
| SERIAL         | _   | CATEG      | LINE | 2V3V4V5V6V7V                                 |          |   |
| 00007150       | 150 | 010        | 55   | ECUADOR<br>PASTAZA                           |          |   |
|                |     | 025        | 5 5  | PUVD<br>1.5 X X S                            |          |   |
|                |     | 000        | 5    |  |          |   |
|                |     | 020        | 55   |  |          |   |
| 0000330        | 320 | 060        | 5    | 34   |          |   |
|                |     | 120        | 5 5  | VALLEY<br>SCRUB                              |          |   |
|                |     | 170        | 5    | DISTANCE FROM NEAREST HOME 100-999 M         |          |   |
|                |     | 200        | 5 3  | SHALL; LONG                                  |          |   |
|                |     | 0 0        | 5 6  |  |          |   |
|                |     | 220        | 5    | TEMPORARY                                    |          |   |
|                |     | 225        | 5 5  | STAGNANT                                     |          |   |
|                |     | 250        | 55   | FRESH  |          |   |
|                |     | 270        | 5    | SCARCE                                       |          |   |
|                |     | 275        | 5    | SCEMERGED: EMERGERI                          | ٠        |   |
| 00009328       | 328 | 600        | 53   | MR<br>A AN ANS I TOTANAE                     |          |   |
|                |     | 202        | 5    | 4 AN. (NIS.) IKINNAE                         |          |   |
| 00012490       | 490 | 000        | 53   | ECU  |          |   |
|                |     | 2 5        | 5 5  | NA DO  |          |   |
|                |     | 025        | 5 5  | TENA   |          |   |
|                |     | 030        | 5    | 11.7 KM SW                                   |          |   |
|                |     | 655<br>670 | 55   | ZS MAY 1977<br>Yiau-min huang                |          |   |
| 00012500       | 000 | 060        | 5    | 40   |          |   |
|                | }   | 120        | 5    | VALLEY                                       |          |   |
|                |     | 136        | 5    | SCRUB  |          |   |
|                |     | 150        | 5 6  | ALCNG ROAD<br>Distance boom measure add-book |          |   |
|                |     | 5 \ C      | 5 5  | LARGE  |          |   |
|                |     | 205        | 0    | GROUND POOL                                  |          |   |
|                |     | 220        | 5 3  | FULL SUN                                     |          |   |
|                |     | 225        | 5 5  | CALCANA                                      |          |   |
|                |     | 235        | 5    | COLORED                                      |          |   |
|                |     | 250        | 5    | FRESH  |          |   |
|                |     | 270<br>275 | 55   | ABUNDANT<br>Submerged; Emergent              |          |   |
| 00012514       | 514 | 009        | 5    |  |          |   |
|                |     | 605        | 5    | 5 AN. (NYS.) TRINKAE                         |          |   |

| DATE: 02/11/80 |  | 2              | LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR MASTER LIST   | PAGE NO: |
|----------------|--|----------------|--|----------|
| SERIAL         | CATEG  | LINE           | 2V3V4V5V6V7V   |          |
| 00013390       | 000<br>010<br>015<br>025<br>050<br>050                                   | 5555555        | ECU<br>ECUADOR<br>NAPO<br>TENA<br>TENA<br>031000<br>25 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00013870       | 090<br>120<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>20 | 55555555555555 | VALLEY SCRUB DISTANCE FROM NEAREST HOME 100-999 M SMALL; LONG GROUND POOL; WHEEL TRACK FINL SUN TEMPORARY STAGNANT CLEAR FESH SCARCE SUBMERGED; EMERGENT |          |
| 00013672       |  | 55             | MR<br>2 AN. (NYS.) TRINKAE   |          |

LOCALITY DATA ABOUT TRINKAE COLLECTED IN ECUADOR

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED \* 0000477 - NUMBER OF RECORDS PRINTED = 0000060

NUMBER OF LINES PROCESSED = 0000477 - NUMBER OF RECORDS PROCESSED = 0000060

And the state of the state of

| PAGE NO: 1                                       | :             | trinkae ever been collected<br>? Where?                                   |   |  |   |
|--|---------------|---|---|--|---|
| TRINKAE COLLECTED IN GROUND POOLS<br>MASTER LIST | 2V3V4V5V6V7V. | Has An. (Nys.) in ground pools  | 9 VALLEY SCRUB ALONG ROAD DISTANCE FROM NEAREST HOME 100-999 M SMALL FORDIS, LAKE; GROUND FOOL FORDIS, LAKE; GROUND FOOL FORDIS, LAKE; GROUND FOOL FORDIS, LAKE; GROUND FOOL FORDISH SHADE STAGNANT COLORED SUBMERGED; EMER. NT GREEN IR 112a ENTERED AS 112. | (NYS.) TRINKAE<br>11 001 *** *** ***<br>FARAN<br>12 12 12 12 12 12 12 12 12 12 12 12 12 1                                | 11<br>OAD<br>ION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M<br>POOL<br>N<br>RY          |
| TR.  | 3             | ECUADOR<br>ECUADOR<br>PASTAZA<br>PUYD<br>39 KM N<br>001750<br>06 MAY 1977 | VALLEY<br>SCRUB<br>ALONG ROAD<br>DISTANCE FROM<br>SMALL<br>POND: LAKE; GI<br>PARTIAL SHADE<br>TEMPORARY<br>STAGNANT<br>COLORED<br>FRESH<br>SUBMERGED; EMIGRE  | ### (NYS.) T *** 001 001 **  #. E. FARAN  E.U  ECU  ECUADGR  PASTAZA  PUYO  4 KM NE  001250  07 MAY 1977  YIAU-MIN HUANG | VALLEY<br>ALONG ROAD<br>PL:NTATION;<br>SMALL<br>GROUND POOL<br>FEMPORARY<br>STAGNANT<br>CLEAR |
|  | LINE          | 2222222   | 555555555555555555555555555555555555555   | 2222 222222  | 555555555   |
|  | CATEG LINE    | 005<br>025<br>030<br>050<br>050   | 000<br>1120<br>1200<br>1200<br>1200<br>1200<br>1200<br>1200   | 6600<br>6400<br>6400<br>6400<br>6400<br>6400<br>6400<br>6400   | 22200000000000000000000000000000000000  |
| DATE: 02/08/80                                   | SERIAL        | 000010000   | 000011000   | 00001110   | 00001680  |

| DATE: 02/08/80 |           |  |                | TRINKAE COLLECTED IN GROUND POOLS MASTER LIST PAGE NO:   |
|----------------|-----------|--|----------------|--|
|                | SERIAL    | CATEG  | LINE           | 2V3V4V5V6V7V   |
| ŏ              | 00001680  | 250<br>275<br>285<br>290<br>500  | 22222          | FRESH<br>SUBMERGED; EMERGENT<br>GREEN; BROWN<br>SCARCE<br>TWO WHOLE MCUNTED ADULTS INCLUDED IN MR 4.   |
| ŏ              | 00001690  | 600<br>605<br>610<br>640   | 2222           | MR<br>1 AN. (NYS.) TRINKAE<br>602 001 001 *** *** *** ***<br>M. E. FARAN   |
| <b>5</b>       | 00002830  | 000<br>010<br>010<br>010<br>010<br>010<br>010<br>010   | 2222222        | ECU ECUADOR PASTAZA PUYO 16 KM NE 001000 07 MAY 1977 YIAU-MIN HUANG  |
| <b>ŏ</b>       | 00002840  | 090<br>120<br>136<br>170<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>2 | 55555555555555 | VALLEY SCALE SCALE SIGNAN SHALL GACUND POOL FULL SUN TEMPORARY STAGNANT GOLORED FRESH SUBMERGED; EMERGENT GREEN; BROWN SCARCE IR 1004 AND b ENTERED AS MR 1. |
| ŏ              | 00002846  | 600  | 22             | MR<br>2 AN. (NYS.) TRINKAE   |
| ŏ              | 000028.30 | 000<br>010<br>020<br>030<br>050<br>050   | 2222222        | ECUADOR<br>PASTAZA<br>PUYO<br>16 KM NE<br>001000<br>07 MAY 1977  |
| ŏ              | 00002950  | 090<br>120<br>165  | 222            | VALLEY<br>Stream   |

| DATE: 02/08/80<br>Si | SERIAL ( | CATEG   | LINE       | TRINKAE COLLECTED IN GROUND PODLS MASTER LIST2V3V4V5V6V7V  | PAGE NO: |
|----------------------|----------|---|------------|--|----------|
| 8                    | 00002950 | 000000000000000000000000000000000000000               | 222222222  | DISTANCE FROM NEAREST HOME 100-999 M<br>SMALL<br>GROUND POOL<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>TURBID: MUDDY<br>FRESH<br>SCARCE<br>IR 105 WITH BROKEN VIAL FOR P.                      |          |
| 000                  | 00002956 | 600<br>605  | 22         | MR<br>2 AN. (NYS.) TRINKAE   |          |
| 000                  | 00003250 | 005<br>010<br>015<br>025<br>050<br>070                | 2222222    | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>01 28S. 077 59W<br>000953<br>08 MAY 1977<br>YIAU-MIN HUANG  |          |
| 000                  | 00003360 | 000<br>1 1 200<br>2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 5555555555 | VALLEY<br>SCRUB<br>DISTANCE FROM NEAREST HOME 100-899 M<br>SMALL; LONG<br>GROUND POOL; WHEEL TRACK<br>FULL SUN<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>SUBMERGED; EMERGENT |          |
| 000                  | 06003271 | 605<br>605  | 22         | MR<br>2 an. (nys.) Trinkae   |          |
| 0                    | 00003250 | 000<br>010<br>015<br>025<br>050<br>050                | 2222222    | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>01 28S. C77 59W<br>000953<br>08 MAY 1977<br>YIAU-MIN HUANG  |          |
| 000                  | 00003770 | 090<br>120<br>160                                     | 222        | 18<br>VALLEY<br>ALONG ROAD   |          |

| DATE: 03/08/80 |          |   |            | FRINKAE COLLECTED IN GROUND POOLS  MASTER LIST  | PAGE NO: |
|----------------|----------|---|------------|---|----------|
|                | SERIAL   | CATEG   | LINE       | 2V3V4V5V6V7V  |          |
|                | 00006220 | 2220<br>2220<br>2220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>22220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>2220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>2 | 55555555   | VALLEY DISTANCE FROM NEAREST HOME 100-999 M LARGE GROUND POOL TEMPORARY STAGNANT SLIGHTLY FRESH H   |          |
| •              | 00006227 | 275<br>600<br>605   | 2 22       | SUBMERGED; EMERGENT<br>MR<br>3 An. (NYS.) TRINKAE   |          |
| •              | 00006210 | 000<br>010<br>010<br>020<br>050<br>050  | 2222222    | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>000891<br>15 MAY 1977<br>YIAU-MIN HUANG  |          |
|                | 00006530 | 090<br>220<br>220<br>220<br>250<br>270  | 2222222222 | 30 VALLEY DISTANCE FROM NEAREST HOME 100-999 M LARGE GROUND POOL; POND-LIKE GROUND POOL STAGNANT SLIGHTLY FRESH ABUNDANT SLUBMERGED; EMERGENT |          |
| •              | 00006540 | 600<br>605<br>610<br>640  | 2222       | MR<br>1 AN. (NYS.) TRINKAE<br>OC1 *** *** *** *** *** ***<br>M. E. FARAN  |          |
| •              | 00006830 | 000<br>010<br>010<br>020<br>030<br>050<br>070   | 2222222    | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>4.3 KM E<br>001000<br>17 MAY 1977<br>YIAU-MIN HUANG  |          |
| •              | 00006840 | 030   | 22         | 31<br>VALLEY  |          |

the winds

| LINE2V3V4V5V6V7V | 01 DISTANCE FROM NEAREST HOME 100-999 M 01 SMALL 01 GROUND POOL 01 FULL SUN 01 TEMPORARY 01 STAGNANT 01 CLEAR 01 FRESH 01 SCARCE 01 SUBMERGED; EMERGENT | 01 MR<br>01 2 AN. (NYS.) TRINKAE | 01 ECU 01 ECUADOR 01 PASTAZA 01 PUYO 01 1.5 KM S 01 000891 01 19 MAY 1977 01 YIAU-MIN HUANG | 01 VALLEY 01 SCRUB 01 DISTANCE FROM NEAREST HOME 100-999 M 01 MEDIUM 01 GROUND POOL 01 FULL SUN 01 STAGNANT 01 STAGNANT 01 STAGNANT 01 STAGNANT 01 SUBMERGED; EMERGENT 01 SUBMERGED; EMERGENT 01 IR 107 AND 107 ENTERED IN MR. | 01 MR<br>61 1 AN. (NYS.) TRINKAE<br>01 012 *** *** 002 002 *** *** ***<br>01 M. E. FARAN | 01 ECU   01 ECUADOR   01 PASTAZA   01 PUYO   01 1.5 KM S   01 000891   01 19 MAY 1977   01 YIAU-MIN HUANG |
|------------------|---|----------------------------------|---|--|--|---|
| CATEG            | 200<br>200<br>200<br>200<br>220<br>220<br>220<br>220<br>270<br>270  | 600<br>605                       | 0 005<br>015<br>015<br>025<br>030<br>050<br>050   | 0 090<br>120<br>170<br>200<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>220<br>2  | 600<br>605<br>610<br>640   | 0 005<br>010<br>015<br>025<br>030<br>050<br>050   |
| SERIAL           | 00006840  | 00006846                         | 00007150  | 00007160   | 00007170   | 00007150  |

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PAGE NO:

TRINKAE COLLECTED IN GROUND POOLS MASTER LIST

DATE: 02/08/80

| SERIAL CATEG LINE2V3V4V5V6V7V | 120 01 VALLEY 120 01 VALLEY 136 01 SCRUB 170 01 DISTANCE FROM NEAREST HOME 100-999 M 170 01 SMALL; LONG 200 01 SMALL; LONG 210 01 FULL SUN 220 01 TEMPORARY 225 01 STAGNANT 226 01 STAGNANT 220 01 FRESH 250 01 FRESH 250 01 GRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH 250 01 FRESH | 007450 600 01 MR (NYS.) TRINKAE 605 01 1 AN. (NYS.) TRINKAE 610 01 001 *** *** *** *** *** *** 640 01 M. E. FARAN | 007150 005 01 ECU 010 01 ECUADOR 015 01 PASTAZA 025 01 PUYO 030 01 1.5 KM S 050 01 000891 055 01 19 MAY 1977 070 01 YIAU-MIN HUANG | 120 01 VALLEY 120 01 VALLEY 136 01 SCRUB 170 01 DISTANCE FROM NEAREST HOME 100-999 M 200 01 SMALL: LONG 205 01 GROUND POOL: WHEEL TRACK 210 01 FULL SUN 220 01 TEMPORARY 225 01 STAGNANT 230 01 FRESH 250 01 SCARCE 275 01 SUBMERGED: EMERGENT | 309328 600 01 MR<br>605 01 4 An. (NYS.) TRINKAE | 012490 005 01 ECU<br>010 01 ECUADOR<br>015 01 NAPO<br>025 01 TENA |
|-------------------------------|---|---|--|--|---|---|
| SERIAL                        | 00007440  | 00007450  | 00007150   | 00009320   | 00009328  | 00012490  |

TRINKAE COLLECTED IN GROUND PODLS MASTER LIST

DATE: 02/08/80

| DATE: 02/03/80 | /80      |                   |      | TRINKAE COLLECTED IN GROUND POULS MASTER LIST | PAGE NO: |
|----------------|----------|-------------------|------|---|----------|
|                | SERIAL   | CATEG LINE        | LINE | 2V3V4V5V6V7V                                  | •        |
|                | 00012490 | 030<br>055<br>070 | 222  | 11.7 KM SW<br>25 MAY 1977<br>YIAU-MIN HUANG   |          |
|                | 00012530 | 030               | 5    | 40  |          |
|                |          | 120               | 5    | VALLEY  |          |
|                |          | 136               | 5    | SCRUB   |          |
|                |          | 160               | 5    | ALONG ROAD                                    |          |
|                |          | 170               | 5    | DISTANCE FROM NEAREST HOME 100-999 M          |          |
|                |          | 200               | 5    | LARGE   |          |
|                |          | 202               | 5    | GROUND POOL                                   |          |
|                |          | 210               | 5    | FULL SUN                                      |          |
|                |          | 220               | 5    | TEMPORARY                                     |          |
|                |          | 225               | 5    | STAGNANT                                      |          |
|                |          | 235               | 5 6  | COLORED                                       |          |
|                |          | 200               | 5 5  | T K I V J                                     |          |
|                |          | 275               | 2    | SUGMERGED: EMERGENT                           |          |
|                | 00012514 | 009               | 5    | MR.   |          |
|                |          | 605               | 5    | 5 AN. (NYS.) TRINKKE                          |          |
|                | 00013390 | 800               | ë    | E21   |          |
|                |          | 0.00              | 5 2  | ECIADO  |          |
|                |          | 015               | 5 6  | ZAPO  |          |
|                |          | 025               | 5    | TENA  |          |
|                |          | 030               | 5    | 13 KM SW                                      |          |
|                |          | 050               | 5    | 001000  |          |
|                |          | 022               | 5 2  | 25 MAY 1977<br>VIALLIMEN HIANG                |          |
|                |          | 5                 | 5    |   |          |
|                | 00013870 | 060               | 5    | 43  |          |
|                |          | 120               | 5    | VALLEY  |          |
|                |          | 136               | 5    |   |          |
|                |          | 170               | 5    | DISTANCE FROM NEAREST HOME 100-999 W          |          |
|                |          | 200               | 5    | SMALL   |          |
|                |          | 202               | 5 8  | GROUND FUGE; WHEEL TRACK                      |          |
|                |          | 2 6               | 5 8  | FULL SUN                                      |          |
|                |          | 225               | 5 5  | STAGNANT                                      |          |
|                |          | 230               | 5    | CLEAR   |          |
|                |          | 250               | 5    | FRESH   |          |
|                |          | 270               | 5    | SCARCE  |          |
|                |          | 275<br>285        | 2 2  | SUBMERGED; EMERGENT                           |          |
|                |          | 2                 | 5    |   |          |
|                | 00013872 | 009               | 5    |   |          |
|                |          | 605               | 5    | 2 AN. (NYS.) TRINKAE                          |          |

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED . 0000360 - NUMBER OF RECORDS PRINTED . 0000045

NUMBER OF LINES PROCESSED . 0000360 - NUMBER OF RECORDS PROCESSED . 0000045

| MASTER LIST |
|-------------|
| AKS1        |
| ~           |
|             |
|             |
|             |

| 4V5V8VV | How many larval-pupal-female and larval-pupal-male individual rearings are there of An. (Nys.) trinkae from Ecuador? |  |   |   |  |  |   |  |                                   |                                |  | 6                 | 6                       |
|---------|--|--|---|---|--|--|---|--|-----------------------------------|--------------------------------|--|-------------------|-------------------------|
| 3v      | S.) TRINKAE  | 3.) TRENKAZ  | S.) FRSHKAE   | S.) ISINKAE   | S.) TRINKAE  | S.) TRINKAE  | S.) TRINKAE   | S.) TRINKAE  | S.) TRINKAE                       | S.) TRINKAE                    | 5.) TRINKAE  | S.) TRINKAE       |                         |
| ;<br>:  | ž×   | ž.   | ž,  | Ň.  | (R<br>*  | ٤.   | ×   | , (N   |                                   | × (N                           | ×.   | × ×               |                         |
| 6       | A X  | NA.  | A X   | A +   | A *  | A X  | X X   | * * *  | N X                               | 4 ×                            | X +  | NA .              |                         |
|         | X O X  | # OX   | # O ×   | α ο ×   | # 8 ×  | H O X  | # 0 ×   | # O X  | # 00 X                            | # 8 ×                          | # 0 X  | ≅ 6×              | 38                      |
| LINE    | 555  | 222  | 299   | 222   | 222  | 222  | 222   | 555  | 555                               | 222                            | 222  | 555               | 0                       |
| CATEG   | 630<br>605<br>610  | 600<br>605<br>616  | 600<br>605<br>810   | 620<br>505<br>310   | 600<br>605<br>610  | 605<br>605<br>616  | 600<br>605<br>610   | 600<br>605<br>616  | 830<br>605<br>610                 | 636<br>635<br>610              | 600<br>605<br>610  | 600<br>605<br>610 | 600                     |
| SERIAL  | 00000260   | 08600000   | 06600000  | 00001340  | 0001160  | 00001800   | 00005830  | 00002920   | 00003160                          | 00003170                       | 00003220   | 00003423          | 00003820                |
|         | SERIAL CATEG LINE2V3V4V5V6V7V  | GATEG LINE2V3V4V5V6V7V  GOO OF TR  GOS OF TR  How many larval-pupal-female and larval-pupal from Ecuador?  from Ecuador? | 650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R           650         01         1R | 630 01 1R | 600 01 1R 600 01 | 600 01 1R 605 01 001 AN (NYS.) FRINKAE 605 01 002 AN (NYS.) FRINKAE 605 01 002 AN (NYS.) FRINKAE 605 01 003 AN (NYS.) FRINKAE 605 01 004 AN (NYS.) FRINKAE 605 01 005 AN (NYS.) FRINKAE 605 01 005 AN (NYS.) FRINKAE 605 01 005 AN (NYS.) FRINKAE 605 01 009 AN (NYS.) FRINKAE 605 01 009 AN (NYS.) FRINKAE 605 01 009 AN (NYS.) FRINKAE 605 01 001 AN X X X X X X X X X X X X X X X X X X | 600 01 1R 605 01 001 AX X X X X X X X X X X X X X X X X X X | CATEG LINE         LINE        2V3V4V5V6V6V           630         01         1R         How many larval-pupal-female and larval-pupal           605         01         201 AN. (NYS.) FRINKAE         from Ecuador?           605         01         1R         from Roador?           606         01         1R         from An. (NYS.) TRINKAE           606         01         1R           606         01         1R           606         01         1R           607         01 <td>CATEG LINE2V3V4V5V6V7V  600 01 1R</td> <td>CATEG LINE2V3V4V5V7V  600 01 1</td> <td>  CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGRINE   CATE</td> <td>  CATEGL LINE  </td> <td>  CATEGO LINE  2V3V4V5V4V</td> | CATEG LINE2V3V4V5V6V7V  600 01 1R | CATEG LINE2V3V4V5V7V  600 01 1 | CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGLINE   CATEGRINE   CATE | CATEGL LINE       | CATEGO LINE  2V3V4V5V4V |

| PAGE NO:   | 7      |                                     |   |   |   |   |   |   |   |   |   |   |   |   |
|--|--------|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-P-M) MASTER LIST |        | COT AN. (NYS.) TRINKAE<br>X X * X + | IR<br>O10 AN. (NYS.) TRINKAE<br>X X * X + | IR<br>002 an. (NYS.) TRINKAE<br>X X * X * | IR<br>OO2 AN. (NYS.) TRINKAE<br>X X X + + | IR<br>OO4 AN. (NYS.) TRINKAE<br>X X * X | IR<br>006 ah. (nys.) trinkae<br>x x x * * | IR<br>007 AN. (NYS.) TRINKAE<br>X X + X + | IR<br>009 AN. (NYS.) TRINKAE<br>X X X * * | IR<br>O11 AN. (NYS.) TRINKAE<br>X X * X * | IR<br>012 AN. (NYS.) TRINKAE<br>X X * X * | IR<br>013 AN. (KYS.) TRINKAE<br>X X * X * | IR<br>014 AN. (NYS.) TRINKAE<br>X A * X * | IR<br>OO1 AN. (NYS.) TRINKAE<br>X X * X 4 |
| =  | 3 LINE | 22                                  | 222                                       | 322                                       | 222                                       | 555                                     | 222                                       | 222                                       | 222                                       | 222                                       | 222                                       | 222                                       | 222                                       | 222                                       |
|  | CATEG  | 605<br>610                          | 600<br>605<br>610                         | 600<br>605<br>610                         | 500<br>605<br>610                         | 600<br>605<br>610                       | 600<br>605<br>610                         | 600<br>605<br>615                         | 600<br>605<br>610                         | 600<br>805<br>610                         | 600<br>605<br>610                         | 630<br>605<br>610                         | 600<br>605<br>610                         | 600<br>605<br>610                         |
| DATE: 62/14/80   | SERIAL | 00003650                            | 00003750                                  | 00004020                                  | 00006320                                  | 04680000                                | 00006410                                  | 03005450                                  | 03006470                                  | 00006490                                  | 00500000                                  | 00006510                                  | 00006520                                  | 00006650                                  |

| DATE: 02/14/80 |           |                   | Z    | UNIONIC              | AL REARI)                             | INDIVIDUAL REAFINGS OF TRINKAE (L-P-F AND L-P-M) MASTER LIST | PAG |
|----------------|-----------|-------------------|------|----------------------|---------------------------------------|--|-----|
|                | SERIAL    | CATEG             | LINE | 2                    | · · · · · · · · · · · · · · · · · · · | 3V4V5V6V7V   |     |
| ŏ              | 00006720  | 600<br>605<br>610 | 222  | 18<br>000<br>X<br>X  | 4. (KYS.                              | AN. (NYS.) TRINKAE<br>X * X                                  |     |
| <b>.</b>       | 00000230  | 600<br>605<br>610 | 222  | 1R<br>005 A<br>X X X | N. (NYS.                              | AN. (NYS.) TRINKAE<br>X * *                                  |     |
| ŏ              | 00006780  | 600<br>605<br>615 | 222  | 118<br>007<br>X X X  | AN. (NYS.                             | (NYS.) TRIMKAE<br>*  |     |
| ŏ              | 00006790  | 605<br>605<br>610 | 222  | 18<br>008 A<br>X X X | AN. (NYS.                             | (NYS.) TRINKAE   | •   |
| ŏ              | 00008800  | 600<br>605<br>610 | 555  | 112<br>000<br>X X X  | N. (NYS.                              | AN. (NYS.) TRINKAE<br>X * *                                  |     |
| ŏ              | 000006810 | 600<br>605<br>610 | 222  | 18<br>010<br>X X     | AN. (NYS.                             | (NYS.) TRINKAE   |     |
| ŏ              | 00006820  | 600<br>605<br>610 | 222  | 18<br>X X X          | N. (NYS.                              | AN. (NYS.) TRINKAE<br>X + +                                  |     |
| ŏ              | 09830000  | 600<br>605<br>610 | 555  | 10<br>001<br>X X     | A. (NYS.                              | AN. (NYS.) TRINKAE<br>X * *                                  | •   |
| ŏ              | 00006910  | 606<br>615        | 222  | 18<br>002 X<br>X X + | AN. (PYS.                             | (PYS.) TRINK1E   |     |
| ŏ              | 00008520  | 600<br>605<br>610 | 222  | 18<br>003<br>X X X   | AN. (NYS.                             | (NYS.) TRINKAE   |     |
| ŏ              | 00007020  | 606<br>605<br>610 | 222  | 17<br>000<br>X X X   | X. (NYS.                              | AN. (NYS.) TRINKAE<br>* X +                                  |     |
| ŏ              | 0000000   | 600<br>605<br>610 | 222  | 112<br>000<br>X X X  | AN. (NYS.                             | (NYS.) TRINKÆE   |     |
| ŏ              | 00007120  | 600<br>605<br>610 | 222  | 77<br>07<br>× A      | N. (NYS.                              | IR<br>013 an. (NYS.) TRINKAE<br>X X * X *                    |     |

|   | >          |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
|---|------------|-------------------|-------------------|---------------------|-------------------|-------------------|---------------------|--------------------------|---|---------------------|---------------------|-------------------|-------------------|---------------------|
|   | 7.         |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
|   | >          |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| Ę.  | . 6        |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| ٠<br>ا  | >          |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| F ANG   |            |                   |                   |                     |                   |                   | •                   |                          |   |                     |                     |                   |                   |                     |
| -d-7)   | ;<br>>     |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| KAE<br>IST  | 4          |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| TRII  | v4v5v6v7v. | KAE               | KAE               | KAE                 | KAE               | KAE               | VKAE                | KAE                      | KAE                                     | WKAE                | VKAE                | KAE               | WKAE              | KAE                 |
| GS DI   | 9          | TRI               | TRI               | TRI                 | TRI               | TRI               | 181                 | TRI                      | TRI                                     | TRI                 | TRI                 | TRI               | TRI               | TRI                 |
| INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-P-M)<br>MASTER LIST | 2v3        | (NYS.) TRINKAE    | (NYS.) TRINKAE    | (NYS.) TRINKAE<br>* | (NYS.) TRINKAE    | (NYS.) TRINKAE    | (NYS.) TRINKAE<br>* | (NYS.) TRINKAE           | (NYS.) TRINKAE                          | (NYS.) TRINKAE<br>* | (NYS.) TRINKAE<br>* | (NYS.) TRINKAE    | (NYS.) TRINKAE    | (NYS.) TRINKAE<br>* |
| אחנ   | 2          | ××                | XX<br>X           | * ×                 | ZX.               | ×.×               | X X                 | IR<br>111 AN.<br>X X X X | × ×                                     | A×.                 | ×××                 | * * ×             | * * ×             | ×××                 |
| 10101   | :          | 800 X             | 118<br>000<br>X   | 18<br>000<br>X      | 800 X<br>40 X     | 18<br>000<br>X X  | 18<br>000<br>X      | # = ×                    | ™ X X X X X X X X X X X X X X X X X X X | × 000<br>× 000      | 18<br>010<br>X      | x 00 x            | 18<br>000<br>X    | 18<br>000<br>X      |
| <b>=</b>  | LINE       | 222               | 222               | 222                 | 222               | 222               | 222                 | 222                      | 222                                     | 222                 | 555                 | 222               | 222               | 222                 |
|   | CATEG      | 600<br>605<br>610 | 600<br>605<br>610 | 600<br>605<br>610   | 600<br>605<br>610 | 600<br>605<br>610 | 605<br>605<br>616   | 600<br>605<br>610        | 606<br>605<br>610                       | 600<br>C35<br>610   | 600<br>605<br>610   | 605<br>605<br>610 | 600<br>605<br>610 | 600<br>605<br>610   |
| e   | SERIAL     | 00007260          | 00007270          | 00007290            | 00007300          | 00007310          | 00007340            | 00037370                 | 00007390                                | 00307400            | 00007420            | 00012750          | 00012780          | 00012790            |
| OATE: 02/14/80  |            |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| TE: 0   |            |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |
| Ø   |            |                   |                   |                     |                   |                   |                     |                          |   |                     |                     |                   |                   |                     |

PAGE NO:

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| PAGE NO:   | ···›           |                                 |  |
| INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-F-M) MASTER LIST |                | CATEG LINE 2 V 3 V 3 CATEG LINE | 01 IR<br>01 011 AN. (NYS.) TRINKAE<br>01 X X * * |
| ₩  |                | LINE                            | 222  |
|  |                | CATEG                           | 600<br>605<br>610<br>610                         |
|  | DATE: 02/14/63 | SERIAL                          | 00013110   |
|  | ð              |                                 |  |

INDIVIDUAL REARINGS OF TRINKAE (L-P-F AND L-P-M)

SELGEN MASTER LIST TOTALS:

NIMBER OF LINES PROCESSED . 0000156 ~ NUMBER OF RECORDS PROCESSED . 0000052 NUMBER OF LINES PRINTED \* 0000156 - NUMBER OF RECORDS PRINTED

101AL L-P-7 AND L-F-M QUINY REPORT 02/12/30

PAGE

SERIAL CATEG LINE TRN DATA-----

LARVAL-PUPAL-FEMALE 27.

LAEVAL-FUPAL-MALE 25.

RECORDS READ - 000112

END OF SELEXT

| MONTHS OF THE YEAR RANGELI WAS CCLLECTED IN ECUADOR  MASTER LIST | SERIAL CATEG LINE2V3V4V5V6V7V | 00001090 005 01 ECU 010 01 ECUADOR 015 01 PASTAZA 025 01 PASTAZA 050 01 001750 055 01 06 MAY 1977 070 01 YIAU-MIN HUANG | 00001100 090 01 VALLEY 120 01 VALLEY 136 01 SCRUB 160 01 ALDNG ROAD 170 01 DISTANCE FROM NEAREST HOME 100-999 M 200 01 SWALL 200 01 PARTIAL SHADE 220 01 TEMPORARY 225 01 STAGNANT 225 01 STAGNANT 225 01 SUBMERGED; EMERGENT 285 01 GREEN 500 01 IR 112a ENTERED AS 112. | 00001121 600 01 MR 605 01 3 AM. (NYS.) RANGELI 00001360 005 01 ECU 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 ECUADOR 010 01 MAY 1977 070 01 YIAU-MIN HUANG | 00001370 090 01 10 10 120 01 VALLEY 120 01 ALCHG ROAD 120 01 ALCHG ROAD 160 01 ALCHG ROAD 170 01 PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M 200 01 FAULL SUN 120 01 FEMPORARY 120 01 STACHARY 120 01 STACHARY 120 01 GLAR |
|--|-------------------------------|---|---|---|--|
| DATE: 02/08/50   |                               | 090010000   |   |   | 00001370   |

| DATE: 02/08/80 | 9        |  | Č,        | MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR MASTER LIST  | PAGE |
|----------------|----------|--|-----------|--|------|
|                | SERIAL   | CATEG  | LINE      | 2V3V4V5V6V7V   | :    |
|                | 00001370 | 230  | 55        | SCARCE<br>IR 1218 AND D ENTERED IN   |      |
|                | 00001402 | 600<br>605   | 55        | MR<br>5 AN. (NYS.) RANGELI   |      |
|                | 00001980 | 00000000000000000000000000000000000000               | 5555555   | ECU<br>ECUADOR<br>PASTAZA<br>FUYO<br>5.3 KM NE<br>001250<br>07 MAY 1977<br>YIAU-MIN HUANG  |      |
|                | 00002050 | 090<br>120<br>136<br>170<br>200<br>200<br>200<br>200 | 5555555   | VALLEY<br>SCRUB<br>ALDWG ROAD<br>PISTANCE FROM NEAREST HOME 100~999 M<br>GRCJUD POOL<br>FULL SUN   |      |
|                |          | 20220  | 355555555 | TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>SCARCE<br>IR 141 DAMAGED.<br>IR 1543. C. AND @ RECORDED IN MAR 2.<br>IR 1543. C. AND @ RECORDED IN MAR 2. |      |
|                | 00002084 | 600<br>605<br>640<br>640                             | 5555      | MR<br>5 AN. (NYS.) RANGELI<br>*** 002 *** 001 *** 001 *** ***<br>W. E. FARAN   |      |
|                | 00002630 | 000<br>000<br>000<br>000<br>000<br>000<br>000<br>000 | 55555555  | ECU<br>ECUADOR<br>PASTAZA<br>PUYD<br>13 KM NE<br>001000<br>07 MAY 1977<br>YIAU-MIN HUANG   |      |
| -              | 00002840 | 090<br>120<br>136<br>136                             | 5555      | VALLEY<br>VALLEY<br>SCRUB<br>DISTANCE FROM NEAREST HOWE 100-599 N  |      |

| DATE: 02/69/80 |   | Š                                       | MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR RASTER LIST  | PAGE NO: |
|----------------|---|---|--|----------|
| SERIAL         | AL CAFEG  | G LINE                                  | 2V3V4V5V6V7V   | :        |
| 00005330       | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200                  | 555555555555                            | VALLEY ALONG ROAD LACGE CLARGE CLARR FRESH SUM SCARCE SUM SCARCE SUM SCARCE SUM SUM SCARCE SUM SUM SCARCE SUM SUM SCARCE SUM SUM SCARCE SUM SCA |          |
| 00005836       | 16 600<br>605   | 55                                      | MR<br>2 AN. (NYS.) RANGELI   |          |
| 00007150       | 50 005<br>015<br>015<br>025<br>030<br>055<br>055                                    | 5555555                                 | ECUADOR<br>PASTAZA<br>PASTAZA<br>1.5 KM S<br>000891<br>19 MAY 1977<br>YIAU-MIN HUANG   |          |
| 00007160       | 20 090 120 120 120 120 120 120 120 120 120 12                                       | 555555555555555555555555555555555555555 | VALLEY SCRUB DISTANCE FROM NEAREST HOME 100-999 M REDIUM GROUND POOL FUIL SUN PERMANENT STAGMANT STAGMANT STAGMANT SUBMERCED: EMERGENT IR 107 AND 167 ENTERED IN MR.   |          |
| 00007180       | 30 605<br>605<br>610<br>610<br>610<br>610<br>610<br>610<br>610<br>610<br>610<br>610 | 5555 55555                              | MR<br>2 AN. (NYS.) RAVUELI<br>COI *** *** *** *** *** ***<br>M. E. FARAN<br>ECUADOR<br>PASTAZA<br>PUTO<br>1.3 KM S   |          |

| DATE: 02/08/80 | 90       |   | NQ#                                     | MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR MASTER LIST  | PAGE NO: |
|----------------|----------|---|---|--|----------|
|                | SERIAL   | CATEG   | LINE                                    | 2V3V4V5V6V7V   |          |
|                | 00007150 | 050<br>055<br>070                             | 555                                     | 000891<br>19 M.Y 1977<br>YAU-MIN HUANG   |          |
|                | 60009320 | 22222222222222222222222222222222222222        | 656666666666666666666666666666666666666 | VALLEY<br>SCRU3<br>DISTANCE FROM MEAREST HOME 100-999 M<br>SMALL: LONG<br>GROUND POOL; WHEEL TRACK<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>CLEAR<br>FRESH<br>SCARCE<br>SUBMERGED; EMERGENT |          |
|                | 00009327 | 606<br>805                                    | 55                                      | MR<br>3 an. (nys.) Rangeli   | ٠        |
|                | 00010180 | 000<br>010<br>015<br>025<br>050<br>050<br>055 | 2222222                                 | ECU<br>ECIADOR<br>PASTAZA<br>PUYO<br>23 KM SE<br>000770<br>19 MAY 1977<br>YIAU-MIN HUANG   |          |
|                | 06010190 | 22000000000000000000000000000000000000        | 5555555555                              | 35 VALLEY DISTANCE FROM NEAREST HOME 100-999 IN LARGE GROUND POOL FULL SUN TEMPORARY STAGNANT RHODY FRESH SCARCE SUJMERGED; EMERCENT   |          |
|                | 00010193 | 605<br>605<br>010<br>010                      | 55 555                                  | MK<br>3 AN. (NYS.) RANGELI<br>ECU<br>ECUADOR<br>NAPO   |          |
|                |          | 025<br>030                                    | 22                                      | TEKA<br>12.5 KM SE   |          |

6.3

| 02/08/80 |   | N<br>Q         | MONTHS OF THE YEAR RANGELI WAS CCL'ECTED IN ECUADOR<br>MASTER LIST  | PAGE NO: |
|----------|---|----------------|---|----------|
| SERIAL   | CATEG   | LINE           | 2V3V4V5V6V7V  |          |
| 00010580 | 050<br>055<br>070   | 222            | 030400<br>24 May 1977<br>Yiau-Nin Huang   |          |
| 00011120 | 00000000000000000000000000000000000000                      | 555555555555   | VALLEY SCRUB SCRUB SCRUB SCRUB SMALL: LONG GROUND POOL TEMPORARY ST.GNANT FEER FRESH ABUNDANT SUGMERGED; EMERGENT IR 155a. b. AND G RECORDED IN MR 1.                                     |          |
| 00011131 | 600   | <b>5</b> 5     | MR<br>2 AN. (NYS.) RANGELI  |          |
| 00012490 | 005<br>010<br>025<br>030<br>055                             | 222222         | ECU<br>ECUADOR<br>NAPO<br>TENA<br>11.7 KM SW<br>25 MAY 1977<br>YIAU-MIN HUANG   |          |
| 00012500 | 2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>200 | 55555555555555 | VALLEY<br>SCRUB<br>ALONG ROAD<br>DISTANCE FROM NEAREST HOME 100-999 M<br>LARCE<br>GROUND POOL<br>FULL SUN<br>TEMPORARY<br>STAGNANT<br>COLORED<br>FRESH<br>ABURDANT<br>SUGAERGED; EMERGENT |          |
| 000125:1 | 600<br>605  | 22             | MR<br>2 an. (Hys.) Rangeli  |          |
| 00012490 | 005<br>010<br>015<br>025                                    | 2222           | ECU<br>Ecuador<br>Napo<br>Tena  |          |

MONTHS OF THE YEAR RANGELI WAS COL'ECTED IN ECUADOR

DATE:

| :<br>>:     |   |  |  |  |   |  |   |   |                               |  |   |   |  |   |   |                           |   |  |                              |  |  |  |  |  |  |  |   |   |                             |  |  |  |  |  |                              |   |                              |                              |                              |
|-------------|---|--|--|--|---|--|---|---|-------------------------------|--|---|---|--|---|---|---------------------------|---|--|------------------------------|--|--|--|--|--|--|--|---|---|-----------------------------|--|--|--|--|--|------------------------------|---|------------------------------|------------------------------|------------------------------|
| 2V3V4V5V6V7 | 11.7 KM SW<br>25 MAY 1977<br>YIAU-MIN HUANG | 41   | VALLEY   | SCRUB  | ALONG KOAD<br>nictance bong neadist Home 160-999 M  | MEDICAM: LONG  | SECTION POOL  |   | TELEBON                       | THE NOTE OF THE PROPERTY OF TH | COLORED   | FRESH   | ABUNDANT   | SUBMERGED; EMERGENT   | GREEN; BROWN  |                           |   | ECU  | ECUADOR                      | A PATE A   | 3  | 000510   | 27 MAY 1977  | YIAU-MIN HUANG   | 44   | VALLEY   |   | CE FROM NEAREST HOME 10-99  |                             | FULL SHILL   | PERMANENT  | STAGNANT   | CLEAR  | FRISH  | ARUNDANI                     | WATER HYACINTH: EICHORNIA   | 2                            | 3 AN. (NYS.) RANCELI         | ECU                          |
| LINE        | 555   | 5  | 5  | 5 6  | 5 2   | 5 5  | 5 5   | 5 5   | 5 6                           | 5 5  | : 2   | 5 5   | 5  | 5   | 5   | 5                         | 5   | 5  | 5                            | 5 3  | 5 5  | 5  | 5  | 5  | 5  | õ  | 5   | 2 5   | 5 8                         | 5 6  | 5  | 5  | 5  | 5 6  | 5 6                          | 55  | 6                            | 0                            | 5                            |
| CATEG       | 030<br>055<br>070                           | 060  | 200  | 5 C  | 150   | 2 0  | 200   | 0.0   | 200                           | 225  | 3.5   | 250   | 270  | 275   | 235   | 909                       | <b>6</b> 0 <b>5</b>   | 900  | 010                          | 0<br>0<br>0<br>0   | 030  | 050  | 055  | 0.40   | 060  | 120  | 145   | 140   | 200                         | 010  | 220  | 225  | 230  | 250  | 27.0                         | 280   | 600                          | 909                          | 605                          |
| SERIAL      | 00012490                                    | 00013130   |  |  |   |  |   |   |                               |  |   |   |  |   | •   | 00013133                  |   | 00013990   |                              |  |  |  |  |  | 00014000   |  |   |   |                             |  |  |  |  |  |                              |   | 00014012                     |                              | 02014370                     |
|             | CATEG LINE2V3V4V5V6V7V                      | CATEG LINE2V3V4V5V6V7V<br>03C 01 11.7 KM SW<br>055 01 25 MAY 1977<br>070 01 YIAU-MIN HUANG | CATEG LINE2V3V4V5V6V7V<br>03C 01 11.7 KM SW<br>055 01 25 MAY 1977<br>070 01 YIAU-MIN HUANG | CATEG LINE2V3V4V5V6V7V<br>03C 01 11.7 KM SW<br>055 01 25 MAY 1977<br>070 01 YIAU-MIN HUANG<br>090 01 41<br>120 01 VALLEY | CATEG LINE2V3V4V5V6V7V<br>03C 01 11.7 KM SW<br>055 01 25 MAY 1977<br>070 01 YIAU-MIN HUANG<br>090 01 41<br>120 01 VALLEY<br>130 01 SCRUB GOLE | CATEG LINE2V3V4V5V6V7V<br>03C 01 11.7 KM SW<br>055 01 25 MAY 1977<br>070 01 YIAU-MIN HUANG<br>090 01 41<br>120 01 VALLEY<br>135 01 SCRUB<br>160 01 ALONG ROAD<br>160 01 ALONG ROAD | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 41  120 01 VALLEY  150 01 SCRUB  160 01 ALGNG ROAD  160 01 DISTANCE FROM NEAREST HOME 100-999 IA | CATEG LINE2V3V4V5V6V7V.  03C 01 11.7 KM SW  05S 01 25 MAY 1977  070 01 YAU-MIN HUANG  090 01 VALLEY  130 01 VALLEY  150 01 ALGMG ROAD  170 01 DISTANCE FROM NEAREST HOME 160-999 M  200 01 MEDIUM ILGNG | CATEG LINE2V3V4V5V6V7V.  0.3C | CATEG LINE2V3V4V5V6V7V  0.3C   | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 41  120 01 VALLEY  130 01 ACAUG FROM NEAREST HOME 100-999 M  200 01 MEDIUM: LONG  200 01 FULL SUN  200 01 FULL SUN  200 01 TEMPORARY  200 01 TEMPORARY | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 41  120 01 YIAU-MIN HUANG  130 01 ALQUG ROAD  150 01 ALQUG ROAD  150 01 ALQUG ROAD  170 01 | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  05S 01 25 MAY 1977  070 01 YAU-MIN HUANG  090 01 VALLEY  15C 01 VALLEY  15C 01 ALGMG ROAD  17D 01 DISTANCE FROM NEAREST HOME 160-999 M  20C 01 ALGMG ROAD  20C 01 TEMPORARY  22C 01 TEMPORARY  22C 01 TEMPORARY  22C 01 FRESH | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  05S C1 25 MAY 1977  070 01 YAU-MIN HUANG  090 01 VALLEY  120 01 VALLEY  120 01 ALGNG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 M  200 01 AEMPORARY  200 01 TEMPORARY  220 01 TEMPORARY  225 01 STAGNANT  225 01 FRESH  270 01 ABUNDANT | CATEG LINE2V3V4V6V7V  03C 01 11.7 KM SW  05S C1 25 MAY 1977  070 01 YAU-MIN HUANG  090 01 VALLEY  120 01 VALLEY  120 01 ALGNG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 M  200 01 ALGNG ROAD  200 01 TEMPORARY  220 01 TEMPORARY  220 01 FESH  220 01 FRESH  220 01 FRESH  220 01 FRESH  220 01 FRESH  220 01 FRESH  220 01 FRESH  220 01 FRESH | CATEG LINE2V3V4V6V7V  035 | CATEG LINE2V3V4V6V7V  03C 01 11.7 KM SW  05S 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  120 01 YIAU-MIN HUANG  120 01 ALCAG ROAD  130 01 ALCAG ROAD  17 | CATEG LINE2V3V4V6V7V  03C 01 11.7 KM SW  05S 01 25 MAY 1977  070 01 YAU-MIN HUANG  090 01 VALLEY  120 01 VALLEY  130 01 ALCHG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 HA  200 01 MEDIUM: LCNS  200 01 TEMPORARY  220 01 TEMPORARY  230 01 TEMPORARY  240 01 TEMPORARY  250 01 TEMPORARY  260 01 TEMPORARY  270 01 TEMPORAR | CATEG LINE2V3V4V5V6V7V  0.3C | CATEG LINE2V3V4V5V6V7V  036 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  120 01 YIAU-MIN HUANG  150 01 SCRUB  160 01 ALGIG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 IA  200 01 TEMPORARY  225 01 TEMPORARY  225 01 TEMPORARY  225 01 TEMPORARY  225 01 TEMPORARY  225 01 TEMPORARY  226 01 TEMPORARY  227 01 ABUNDANT  276 01 ARCHEN; BROWN  600 01 ARCHEN; BROWN  600 01 ARCHEN; BROWN  600 01 ARCHEN; BROWN  600 01 ECUADOR | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  120 01 YIAU-M | CATEG LINE2V3V4V5V8V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  090 01 ALEKY  150 01 VALLEY  150 01 VALLEY  150 01 ALONG ROAD  170 01 FRESH  200 01 TEMPRARY  225 01 TEMPRARY  226 01 STACNAJI  235 01 GREEN; BROWN  600 01 MR  605 01 ARUNGAI  275 01 SUGMERGED; EMERGENT  285 01 GREEN; BROWN  605 01 ARUNGAI  275 01 TEMPORATY  276 01 SUGMERGED; EMERGENT  277 01 ALUNGAI  278 01 GREEN; BROWN  600 01 MR  605 01 ARN  605 01 TEMPORATY  1.5 KM S | CATEG LINE2V3V4V5V66V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 VALLEY  120 01 VALLEY  130 01 SCRUB  150 01 VALLEY  150 01 SCRUB  150 01 MEDIUM: LCNG  250 01 MEDIUM: LCNG  250 01 TEMPORARY  250 01 TEMPORARY  270 01 TEMPORARY  270 01 MEDIUM: REGENT  275 01 STACKAJI  275 01 STACKAJI  275 01 STACKAJI  276 01 ABUNDANT  275 01 SCRUB REGENT  276 01 ABUNDANT  276 01 ABUNDANT  277 01 ABUNDANT  278 01 SCRUB REGENT  286 01 AR  600 01 MR  600 MR  600 MR  600 MR  600 MR  600 MR  600 MR  600 MR  600 M | CATEG LINE2V33V4V5V66V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 VALLEY  130 01 VALLEY  130 01 SCRUB  150 01 VALLEY  130 01 SCRUB  150 01 MEDIUM: LCNG  230 01 TEMPORARY  235 01 TEMPORARY  235 01 TEMPORARY  236 01 TEMPORARY  236 01 TEMPORARY  237 0 ABUNDANT  275 01 SUGMERGED: EMERGENT  275 01 ABUNDANT  275 01 ABUNDANT  275 01 ABUNDANT  275 01 TEMPORARY  276 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 MR  600 01 TEMPORARY  276 01 TEMPORARY  277 01 TEMPORARY  278 01 TEMPORARY  278 01 TEMPORARY  278 01 TEMPORARY  279 01 TEMPORARY  270 01 TEMPORARY  2 | CATEG LINE2V3V5V6V7V  03C 01 11.7 kM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 VALLEY  130 01 ALGNG ROAD  150 01 ALGNG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 M  200 01 TEMBORARY  225 01 STACKANT  225 01 TEMBORARY  225 01 STACKANT  225 01 STACKANT  225 01 SUGMERGED: EMERGENT  235 01 GREEN: BROWN  600 01 MR  600 01 MR  605 01 GREEN: BROWN  605 01 TENA  005 01 TENA  005 01 TENA  006 01 TENA  007 01 TENA  008 01 TENA  008 01 TENA  009 01 TENA  000 01 TENA  00 | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 ALCIG ROAD  120 01 ALCIG ROAD  170 | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YALLEY  136 01 ALCHG ROAD  160 01 ALCHG ROAD  170 01 SCRUB  160 01 ALCHG ROAD  170 01 STANCH ENGLY  20 01 TEMPORAY  20 01 TEMPORAY  225 01 TEMPORAY  225 01 STANCHY  226 01 GREEN: BROWN  600 01 MR  600 01 MR  600 01 MR  605 01 3 AN. (NYS.) RANGELI  005 01 TS MS  01 5 MS  01 5 MS  020 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  030 01 TS MS  040 01 VALLEY | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YAU-MIN HUANG  030 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  150 01 YAU-MIN HUANG  160 01 MR  160 01 MR  170 01 YAU-MIN HUANG  170 01 YAU-MIN HUANG  170 01 YAU-MIN HUANG  170 01 WAIFP HYACINIH: EICHGRNIA | CATEG LINE2V3V4V5V6V7V  036 | CATEG LINE2V3V4V5V6V7V  036 01 11.7 KM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 VALLEY  150 01 SCRUB  150 01 ALDIG RADA  170 01 DISTANCE FROM NEAREST HOME 100-999 IM  230 01 SCRUB POCUL  230 01 TEMPORARY  235 01 GADUN: LONG  236 01 TEMPORARY  236 01 TEMPORARY  237 01 FRESH  238 01 COLORED  230 01 TEMPORARY  238 01 GREEN: BROWN  605 01 AN (NYS.) RANGELI  005 01 TENA  000 01 TENA  0 | CATEG LINE2V3V4V5V8V7V  036 01 11.7 kM SW  055 01 25 MAY 1977  070 01 YIAU-MIN HUANG  090 01 YIAU-MIN HUANG  120 01 ALCRG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 M  150 01 ALCRG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 M  150 01 ALCRG ROAD  170 01 TEMPORARY  225 01 TEMPORARY  226 01 TEMPORARY  227 01 TEMPORARY  228 01 TEMPORARY  229 01 TEMPORARY  220 01 TEMPORARY  230 01 TEMPORARY  240 01 TEMPORARY  250 01 | CATEG LINE2V3V4V5V8V7V  036 01 11.7 kM SW  055 01 25 MAY 1977  070 01 YAUL-MIN HUANG  030 01 YAUL-MIN HUANG  120 01 YAUL-MIN HUANG  120 01 ALCHG ROAD  170 01 DISTANCE FROM NEAREST HOME 100-999 IM  180 01 ALCHG ROAD  170 01 | CATEG LINE2V3V4V5V8V7V  036 01 11.7 kM SW  055 01 25 MAY 1977  070 01 YLAU-MIN HUANG  030 01 YLAU-MIN HUANG  120 01 YLAU-MIN HUANG  130 01 SCRUB  140 01 DISTANCE FROM NEAREST HOME 100-999 h  150 01 SCRUB  150 01 FRESH  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 TEMPORANY  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 MAR  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 WALLEY  150 01 PERMANNIN  150 01 PERMANNIN  150 01 PERMANNIN  150 01 PERMANNIN | CATEG LINE2V3V4V5V6V7V  03C 01 11.7 KM SW  055 01 25 MAY 1977  030 01 VALLEY  130 01 VALLEY  130 01 ALGNG ROAD  170 01 ALGNG ROAD  170 01 ALGNG ROAD  170 01 CULL SUN  235 01 GFENIANCE FROM NEAREST HOME 100-999 M  230 01 FRESH  235 01 GFOUND PUCUL  235 01 GFOUND PUCUL  235 01 GFOUND ANT  235 01 GFOUND ANT  235 01 GREEN: BROWN  246 01 GREEN: BROWN  256 01 TENA  257 01 ALGNG ROAD  258 01 GFOUND ANT  276 01 AND  276 01 AND  276 01 AND  276 01 AND  276 01 AND  276 01 AND  277 MAY 1977  270 01 TENA  2 | CATEG LINE2V3V4V5V6V7V  0.3C | CATEG LINE2VV33VV44VV55VV64VV77VV35VV144VV55VV64VV77VV35VV44VV55VV64VV77VV35VV44VV55VV64VV77VV35VV44VV35VV44VV35VV44VV35VV44VV35VV44VV35VV44VV35VV44VV35VV44VV35VV44VV37VV37VV44VV37VV37VV37VV37VV37VV3 | CATEG LINE2V3V4V5V6V7V  0.30 | CATÉG LINE2V3V4V5V6V7V  0.3C | CATEG LINE2V3V4V5V6V7V  0.25 |

| 02/08/80 |  | NO           | MONTAS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR MASTER LIST  | PAGE NO: |
|----------|--|--------------|--|----------|
| SERIAL   | CATEG  | LINE         | 2V3V4V5V6V7V   |          |
| 00014370 | 010<br>015<br>030<br>050<br>050<br>070                       | 555555       | ECUADOR NAPO TENA 1 KM S 000510 28 MAY 1977 YIAU-MIN HUANG   |          |
| 00014380 | 2250<br>2250<br>2250<br>2250<br>2320<br>2320<br>2320<br>2320 | 22222222222  | VALLEY DISTANCE FROM NEAREST HOME 10-99 M SMALL SMALL FULL SUN TEMPORARY STAGNARY STAGNARY STAGNARY SCARCE SUBMERGED; EMERGENT   |          |
| 00014382 | 600  | 55           | MR<br>2 AN. (NYS.) RANGELI   |          |
| 00019230 | 005<br>015<br>025<br>055<br>070                              | 222222       | ECU<br>ECUADOR<br>NAPO<br>LIMONCOCHA<br>OB JUN 1977<br>YIAU-MIN HUANG  |          |
| 00019880 | 090<br>2200<br>2200<br>2200<br>2200<br>2200<br>2200<br>2200  | 555555555555 | VALLEY DISTANCE FROM NEAREST HOME 10-99 M DISTANCE FROM NEAREST HOME 10-99 M GROUND POOL PARTIAL SHAGE TENPORAR! STAGNAN! FRISH FRISH ABUNDANT SUBMERGED; EMERGENT IR 1080 RECORDED AS MR 1. |          |
| 00015890 | 600<br>605<br>610<br>640                                     | 2222         | MR<br>1 AN. (NYS.) RANGELI<br>4×+ 002 **+ 001 0:)1 *** *** ***<br>M. E. FARAN  |          |

MONTHS OF THE YEAR RANGELI WAS COLLECTED IN ECUADOR

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED . 0000361 - NUMBER OF RECORDS PRINTED . 0000045

NUMBER OF LINES PROCESSED = 0000361 - NUMBER OF RECORDS PROCESSED = 0000045

| DATE: 02/07/80 0 0 0 | SERIAL<br>000000110<br>000000110<br>00000010 | O    | N 2999999 99999999999999999999999999999 | TRINKAE COLLECTED ABOVE 250 M IN ECUADOR  MASSER LIST 2V3V3V4V5V6V7V  ECU  BASTAZA  BASTAZA  BASTAZA  BASTAZA  BASTAZA  ALONG ROAD:  MAIN ROAD  DISTANCE FROM NEREST HOME 100-999 M  ACRUB  AND MAIN ROAD  MAIN (NYS.) TRINKAE  BOOT 001 *** *** *** *** *** *** ***  *** *** * | ······································ |
|----------------------|--|------|---|---|--|
|                      |  | 2000 | 555                                     | FRESH<br>SUBMERGED<br>A ANDWELE E LABOARE DIED  |  |
|                      |  | 200  | 5 3                                     | 2 ANOPHELES LARVAE DIED.  |  |
|                      | 00000210                                     | 003  | 2                                       | SER.  |  |

250 M

| PAGE NO: |                   |   |  | · · ·   |   |
|----------|-------------------|---|--|---|---|
| 2 3      | *                 | ECU<br>ECUADOR<br>PASTAZA<br>PUVO<br>01 28S. 377 59M<br>000953<br>05 MAY 1977<br>YIAU-MIN HUANG | SCRUB DISTANCE FROM NEAREST HOME 100-999 M SMALL: LONG SIZEAM POOL FULL SUN TEMPORARY CLEAR FRESH SUBMERGED: FLOATING: EMERGENT GREEN IR 100a AND 100b ENTERED AS 100 AND 101. IR 100b WITH 2 1. | MR<br>4 AN. (NYS.) TRINKAE<br>ECUADOR<br>PSTAZA<br>PUYO<br>20 KM N<br>001000<br>06 MAY 1977<br>YIAU-MIN HUANG | VALLEY SCRUB DISTANCE FROM NEAREST HOME 10-99 M LARGE POND FULL SUN PERMANENT SLOW SLOW SLOW SLOW SLOW SLOW SLOW SLOW |
| 2        | 555               | 2222222   | 5555555555   | 55 5555555  | 555555555555  |
|          | 605<br>610<br>640 | 005<br>010<br>010<br>015<br>015<br>015<br>010   | 090<br>136<br>170<br>200<br>220<br>230<br>250<br>280<br>500  | 600<br>605<br>005<br>010<br>015<br>025<br>030<br>050<br>050   | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200  |
|          | 210               | 010000010   | 00000220   | 00000233  | 00000290  |

| PAGE NO:  | •            |  |                            |  |  |  |  |   |
|---|--------------|--|----------------------------|--|--|--|--|---|
| TRÎNKAE COLLECTED AEOVE 250 M ÎN ECUADOR<br>Master List | 2V3V4V5V6V7V | SCARCE<br>IR 163a. b. AND C ENTERED IN MR. | MR<br>5 AN. (NYS.) TRINKAE | ECUADOR<br>PASTAZA<br>PUYO<br>39 KM N<br>001750<br>06 HAY 1977 | SENT   | IR 112a ENTERED AS 112.<br>MR<br>1 AN. (NYS.) TRINKAE<br>++* 001 001 +++ +++ +++ +++ | ECUADOR<br>PASTAZA<br>PUVO<br>4 KM NE<br>001250<br>07 MAY 1977<br>YIAU-MIN HUANG | 11<br>VALLEY<br>ALGNG ROAD<br>PLANTATION; SUGARCANE; DISTANCE FROM NEAREST HOME 100-999 M<br>SMALL<br>GROUND POOL |
|   | LINE         | 99   | 22                         | 2222222  | 5555555555555  | 2 2 2 2 2  | 2222222  | 22222   |
|   | CAFEG        | 290  | 600                        | 000<br>010<br>010<br>020<br>030<br>050<br>070                  | 090<br>120<br>136<br>160<br>170<br>200<br>220<br>220<br>225<br>235<br>235<br>235<br>245<br>285 | 600<br>600<br>605<br>640   | 010<br>010<br>015<br>025<br>030<br>050<br>050                                    | 090<br>120<br>160<br>170<br>200   |
| DATE: 02/07/80  | SERIAL       | 00000530                                   | 00000322                   | 00001000   | 00001100   | 00001110   | 00001360   | 00001680  |
| DATE:   |              |  |                            |  |  |  |  |   |

| PAGE NO:  | :           |  |   |  |   |   |
|---|-------------|--|---|--|---|---|
| TRINKAE COLLECTED ABOVE 250 M IN ECUADOR<br>MASTER LIST | 2V3V4V5V6V7 | FULL SUN TEMPORARY STAGNANT CLEAR FRESH SUSARRGED; EMERGENT GREEN: BROWN SCARCE TWO WHOLE MOUNTED ADULTS INCLUDED IN MR 4. | MIR<br>1 AN. (NYS.) TRINKAE<br>002 001 001 *** *** *** ***<br>M. E. FARAN | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>16 KM NE<br>001000<br>07 MAY 1977<br>YIAU-KIN HUANG | VALLEY SCRUB DISTANCE FROM NEAREST HOME 100-999 M SMALL GROUND POOL FULL SUN TEMPORARY SIAGNANT COLORED FRESH SUSMERGENT GREEN: EMERGENT GREEN: EROWN SCARCE IR 100a AND D ENTERED AS MR 1. | MR 2 AN. (NYS.) TRINKAE ECU ECUADOR PASTAZA PUYO 16 KM NE 001000 07 MAY 1977 YIAU-MIN HUANG |
|   | LINE        | 22222222   | 2222  | 2222222  | 555555555555555555555555555555555555555   | 22 2222222  |
|   | CATEG       | 210<br>220<br>220<br>230<br>230<br>235<br>235<br>500<br>500  | 600<br>605<br>610<br>640  | 000<br>010<br>015<br>025<br>030<br>050<br>050  | 090<br>120<br>130<br>130<br>200<br>200<br>220<br>220<br>230<br>230<br>240<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>250<br>25  | 605<br>605<br>605<br>605<br>615<br>625<br>636<br>650<br>650                                 |
| DATE: 02/07/80  | SERIAL      | 00001680   | 00001690  | 000028.30  | 00002840  | 00002846  |

| TRINKAE COLLECTED ABOVE 250 15 IN ECUADOR<br>Master List | EG LINE2V3V4V5V6V7 | 5555555555  | 5 01 FRESH<br>5 01 SUBMERGED; EMERGENT<br>5 01 GREEN<br>0 01 MR<br>5 01 4 AN. (NYS.) TRINKAE | 01 ECUADOR<br>01 PASTAZA<br>01 PUYO<br>01 31 KM W<br>01 002500<br>01 VIAU-MI | 20 01 ALONG ROAD 0 01 SMALL 6 01 DITCH 6 01 TEMPORARY 7 01 TEMPORARY 9 01 STAGNANT 10 SCARCE 10 SUBMERGED: EMERGENT 10 CHARLOTTE COULD NOT FIND SLIDES FOR MR 1. | 0 01 MR<br>0 01 1 AN. (NYS.) TRINKAE<br>0 01 003 *** *** *** *** *** ***<br>0 01 M. E. FARAN<br>0 01 ECUADGR<br>0 01 ECUADGR<br>0 01 12 KM W<br>0 01 12 KM W<br>0 01 001250<br>0 01 09 MAY 1977 |
|--|--------------------|---|--|--|--|---|
|  | CATEG              | 2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>2000<br>200 | 250<br>275<br>285<br>285<br>600<br>605   | 005<br>015<br>015<br>025<br>030<br>050<br>070                                | 000<br>000<br>000<br>000<br>000<br>000<br>000<br>000   | 600<br>640<br>640<br>640<br>600<br>600<br>600<br>600<br>600<br>600  |
| DATE: 02/07/80   | SERIAL             | 00003770  | 00003801   | 00004940   | 00004950   | 00004960  |

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| <br>0   |              |                |                   |                         |                         |                       |       |                   |                     |                            |          |         |              |          |        |                               |   |              |                                      |                      |           |          |       |                                 |         |                      |          |         |            |          |                       |                |
|---|--------------|----------------|-------------------|-------------------------|-------------------------|-----------------------|-------|-------------------|---------------------|----------------------------|----------|---------|--------------|----------|--------|-------------------------------|---|--------------|--------------------------------------|----------------------|-----------|----------|-------|---------------------------------|---------|----------------------|----------|---------|------------|----------|-----------------------|----------------|
| PAGE NO:  | •            |                | ÷                 |                         |                         |                       |       |                   |                     |                            |          |         |              |          |        |                               |   |              |                                      |                      |           |          |       |                                 |         |                      |          |         |            |          |                       |                |
|   | 7            |                |                   | ٠                       |                         |                       |       |                   |                     |                            |          |         |              |          |        |                               |   |              |                                      |                      |           |          |       |                                 |         |                      |          |         |            |          |                       |                |
| TRINKAE COLLECTED ASGVE 250 M IN ECUADOR<br>Master List | 2v3v4v5v6v77 | YIAU-MIN HUANG | VALLEY<br>STREAM  | UM NEAKES! HUME 100-999 | GRUUND PUUL<br>FULL SUN | 1EMPORARY<br>STAGNANT | CLEAR | FRESH<br>Abundant | SUBMERGED; EMERGENT | MR<br>2 AN. (NYS.) TRINKAE | ECU      | ECUADOR | PASIACA      | 1.5 KM S | 000891 | 15 MAY 1977<br>YIAU-MIN HUANG | ; | 29<br>VALLEY | DISTANCE FROM NEAREST HOME 100-999 M | LANGE<br>GROUND POOL | TEMPORARY | STAGNANT | FRESH | ABUNDANT<br>Submerged; emergent | 2       | J AN. (NYS.) TRINKAE | ECU      | ECUADOR | CARd       | 1.5 KM S | 000891<br>15 MAY 1977 | YIAU-MIN HUKNG |
|   | LINE         | 5              | 222               | 55                      | 55                      | 5 5                   | 55    | 5 5               | 6                   | 22                         | 5        | 5       | 5 5          | 5        | 5      | 2 2                           |   | 5 5          | 5                                    | 5 5                  | 5         | 5 3      | 55    | 22                              | 3       | 5 5                  | 0        | 5 8     | 5 5        | 5        | 5 6                   | 5              |
|   | CATEG        | 020            | 690<br>120<br>165 | 200                     | 202<br>210              | 220                   | 230   | 250<br>270        | 275                 | 600                        | 900      | 010     | 0.00<br>0.00 | 030      | 020    | 055                           |   | 120          | 170                                  | 200                  | 220       | 225      | 255   | 270<br>275                      | 9       | 605                  | 005      | 5       | 013<br>025 | 030      | 0<br>0<br>0<br>0<br>0 | 070            |
| 01/80   | SERIAL       | 00005180       | 00002190          |                         |                         |                       |       |                   |                     | 00005196                   | 00006210 |         |              |          |        |                               |   | 00006220     |                                      |                      |           |          |       |                                 | 1000000 | 77790000             | 00006210 |         |            |          |                       |                |
| DATE: 02/07/80  |              |                |                   |                         |                         |                       |       |                   |                     |                            |          |         |              |          |        |                               |   |              |                                      |                      |           |          |       |                                 |         |                      |          |         |            |          |                       |                |

| 1/07/80  |  |             | TRINKAE COLLECTED ABOVE 250 M IN ECUADOR<br>Master List   | PAGE NO: |
|----------|--|-------------|---|----------|
| SERIAL   | CATEG  | LINE        | 2V3V4V5V6V7V  |          |
| 00006530 | 200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200<br>200 | 2222222222  | VALLEY USITANCE FROM NEAREST HOME 100~999 M LAIGE GROUND POOL: POND-LIKE GROUND POOL TEMPORARY SIAGNANT SIAGNANT FRESH ABUNDANT SUBMERGED: EMERGENT                   |          |
| 20006540 | 600<br>605<br>610<br>640   | 2222        | MR<br>1 AN. (NYS.) TRINKAE<br>001 *** *** *** *** *** ***<br>M. E. FARAN  |          |
| 00006830 | 000<br>000<br>000<br>000<br>000<br>000<br>000                      | 2222222     | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>4.3 KM E<br>001000<br>17 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00006840 | 2250<br>2250<br>2250<br>2250<br>2250<br>2250<br>2250<br>2250       | 55555555555 | VALLEY DISTANCE FROM NEAREST HOME 100-999 M DISTANCE FROM NEAREST HOME 100-999 M SMALL GROUND POOL FULL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SUBMERGED; EMERGENT |          |
| 00006846 | 606<br>605   | 55          | MR<br>2 AN. (NYS.) TRINKAE  |          |
| 00007150 | 000<br>000<br>000<br>000<br>000<br>000<br>000                      | 2222222     | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>0.0691<br>19 MAY 1977<br>YIAU-MIN HUANG  | ,        |

| 02/07/80 |                    |          | TRINKAE COLLECTED AROVE 250 % IN ECUADOR<br>MASTER LIST | PAGE NO: |
|----------|--------------------|----------|---|----------|
| SERIAL   | CATEG              | LINE     | 2V3V4V5V6V7V  |          |
| 00007160 | 060                | 5        | 32  |          |
|          | 120                | 2        | >   |          |
|          | 136                | 2 9      |   |          |
|          | 200                | 5 5      | CINIANCE YRUM MEARENI RUMEN TOCHUSUU M                  |          |
|          | 205                | 5        | GRUUND POOL   |          |
|          | 210                | 5        | FULL SUN  |          |
|          | 220                | 5 3      | PERMANENT   |          |
|          | 225                | 5 2      | S. L. C. C. C. C. C. C. C. C. C. C. C. C. C.            |          |
|          | 250                | 5 2      | H7303   |          |
|          | 270                | 5 5      | ABUNDANT  |          |
|          | 27.2               | 5        | ä   |          |
|          | 200                | 5        | IR 107 AND 107 ENTERED IN MR.                           |          |
| 00000110 | 600                | 0        | 22  |          |
|          | 605                | 5        | 1 AN. (NYS.) TRINKAE                                    |          |
|          | 610                | 5        | 012 *** *** 002 002 *** *** ***                         |          |
|          | 640                | 5        | M. E. FARAN   |          |
| 00007150 | 500                | 5        | FCU   |          |
|          | 010                | 5        | ECUADOR   | •        |
|          | 015                | 5        | PASTAZA   |          |
|          | 025                | 5 6      | PUYO<br>T. T. T.  |          |
|          | 020                | 5 5      | 1.5 KM 5  |          |
|          | 0<br>0<br>10<br>10 | 5 5      | 10 May 1977   |          |
|          | 070                | 5 5      | YIAU-MIN HUANG  |          |
| 00007440 | 060                | 5        |   |          |
|          | 120                | 5        | >   |          |
|          | 136                | <u>.</u> | SCRUB   |          |
|          | 170                | 5        | DISTANCE FROM NEAREST HOME 100-999 M                    |          |
|          | 300                | 5 3      | SAALL: LONG   |          |
|          | 0.00               | 5 5      | CKOONO FOOL: WHERE LANCK                                | -        |
|          | 220                | 5 5      | TEMPORARY   |          |
|          | 225                | 5        | STAGNANT  |          |
|          | 230                | 5        | CLEAR   |          |
|          | 250                | 5 5      | FRESH   |          |
|          | 275                | 5 5      | SCHACE SEEDING  |          |
|          | 285                | 5 6      | COCHEN  |          |
|          | 200                | 5        | IR 102 DAMAGED.   |          |
| 30007450 | 909                | 0        |   |          |
|          | 605                | 5        | 1 AN. (NYS.) TRINKAE                                    |          |
|          | 616<br>640         | 22       | OOF 484 444 884 884 884 884 884 888 888 88              |          |
|          | 6                  | ;        |   |          |
| 00007150 | 600                | 5        | ECU   |          |

DATE:

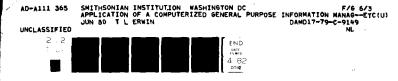
| DATE: 02/07/80<br>Serial | CATEG L   | LINE            | TRINKAE COLLECTED ABOVE 250 N. IN ECUADOR MASTER LIST2V3V4V5V6V7V  | PAGE NO: |
|--------------------------|---|-----------------|--|----------|
| 00007150                 | 010<br>015<br>025<br>050<br>055   | 222222          | ECUADOR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>000891<br>19 MAY 1977<br>YIAU-MIN HUANG  |          |
| 00009320                 | 090<br>120<br>136<br>170<br>200<br>200<br>220<br>220<br>220<br>220<br>220<br>220<br>270 | 00000000000000  | 34 VALLEY SCRUB SCRUB SISTANCE FROM NEAREST HOME 100-999 M SMALL: LONG GROUND POOL: WHEEL TRACK FULL SUN TEMPORARY STAGNANT CLEAR FRESH SCARCE SUBMERGED: EMERCENT |          |
| 00009328                 | 600<br>605<br>0010<br>015<br>030<br>030<br>050<br>050                                   | 55 5555555      | MR<br>4 AN. (NYS.) TRINKAE<br>ECUADOR<br>NAPO<br>TENA<br>13 KM SW<br>001000<br>25 MAY 1977<br>Y. AU-MIN HUANG  |          |
| 3870                     |   | 000000000000000 | VALLEY SCRUB SCRUB DISTANCE FROM NEAREST HOME 100~999 M SMALL: LONG SMALL: LONG SMALL: SUN IEMPORARY STAGNANT CLEAR FRESH SCARCE SUBHERGED; EMERGENT               |          |
| 3872                     | 000<br>002  | 55              | MR<br>2 an. (nys.) trinkae   |          |

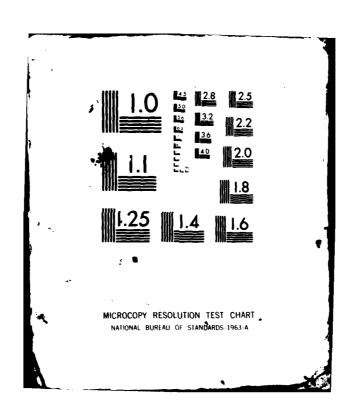
TRINKAE COLLECTED ABOVE 250 M IN ECUADOR

SELGEM MASTER LIST TGTALS:

NUMBER OF LINES PRINTED \* 0000454 - NUMBER OF RECORDS PRINTED \* 0000057 NUMBER OF LINES PROCESSED \* 0000057

| : 02/01/80       |   |               | TRINKAE WITH RANGELI HABIT LIST MASTER LIST  | <b>-</b><br>:0             |
|------------------|---|---------------|--|----------------------------|
| SERIAL           | CATEG LINE                                    | LINE          | 23V4V5V6V7V  |                            |
| 000010000        | 625<br>625<br>636<br>655<br>670               | 2222222       | ECUADOR ECUADOR ECUADOR An. (Nys.) trinkae been collected with An. (Nys.) rangeli in Ecuador? In what ty PUYO 39 KM N 001750 06 MAY 1977 YIAU-MIN HUANG                | ected with<br>In what type |
| 00001100         | 00000000000000000000000000000000000000        | 2622222222222 | VALLEY SCRUB ALONG ROAD DISTANCE FROM NEAREST HOME 100-999 M SMALL POND: LAKE: GROUND POOL PARTIAL SHADE STAGNANT COLORED FRESH SUBMERGED: EMERGENT FOR ENTERED AS 445 |                            |
| 00001121         | 600   | 2 2 2         | MR<br>3 AN. (NYS.) RANGELI   |                            |
| 00001110         | 600<br>605<br>610<br>640                      | 2222          | MR<br>1 AN. (NYS.) TRINKAE<br>1 AN. (NYS.) TRINKAE<br>1 AN. C. FARAN   |                            |
| <b>0</b> 6002436 | 0000<br>0000<br>0000<br>0000<br>0000          | 92999999      | ECU<br>ECUADOR<br>PASTAZA<br>PUYO<br>16 KN NE<br>00100N<br>07 MAY 1977<br>YIAU-MIN HUANS   |                            |
| 00002840         | 120<br>120<br>136<br>200<br>200<br>200<br>200 | 222222        | VALLEY<br>SCRUB<br>SITANCE FROM NEAREST HOME 100~999 M<br>GROUND POOL<br>FULL SUN  |                            |





| TRINKAE WITH RANGELI HABIT LIST<br>MASTER LIST | 2V3V4V5V6V7 | TEMPORARY STAGNANT COLCRED COLCRED SUBJERGED: EMERGENT GREEN: BROWN SCARCE IR 1002 AND D ENTERED AS MR 1. | AN. (NYS.) RANGELI   | MR<br>2 an. (nys.) Trinkae | ECU<br>ECUADGR<br>PASTAZA<br>PUYO<br>1.5 KM S<br>000891<br>19 MAY 1977 | VALLEY SCRUB DISTANCE FROM NEAREST HOME 100-999 M MEDIUM GROUND POOL FULL SUN PERMANENT STAGNANT CLEAR ABUNDANT SUBMERGED; EMERGENT IR 107 AND 107 ENTERED IN MR. | MR<br>2 AN. (NYS.) RANGELI<br>001 *** *** *** *** *** *** *** | MR<br>1 AN. (NYS.) TRINNAE<br>012 *** *** 002 002 *** ***<br>M. E. FARAN | ECU<br>ECUADOR |
|--|-------------|---|----------------------|----------------------------|--|---|---|--|----------------|
|  | LINE .      | - N C C C C C C C C C C C C C C C C C C   | 01<br>01<br>01<br>01 | 01 MR                      | 01 ECU<br>01 PASI<br>01 1.5<br>01 1.9 A                                | > 0000000000000000000000000000000000000   | 01 00 AI<br>01 00 AI  | 01 MR<br>01 1 AN<br>01 012   | 01 ECU         |
|  |             |   |                      |                            |  |   |   |  |                |
|  | CATEG       | 222<br>222<br>222<br>220<br>230<br>230<br>230<br>230<br>230<br>230  | 600                  | 600<br>605                 | 000<br>010<br>020<br>030<br>050<br>070                                 | 090<br>120<br>136<br>136<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120<br>120  | 600<br>605<br>610<br>640                                      | 605<br>605<br>610<br>640   | 005            |
| DA1E: 02/07/80                                 | SERIAL      | . 00002840  | 00002847             | 00002846                   | 00007150   | 00007180  | 00007180  | 000071,0   | 00012490       |

PAGE NO:

| PAGE   |              |          |            |                               | ,        |        |       |            |                                      |       |             |          |           |          |         |       |          |                     |          | •                    |          |                      |
|--|--------------|----------|------------|-------------------------------|----------|--------|-------|------------|--------------------------------------|-------|-------------|----------|-----------|----------|---------|-------|----------|---------------------|----------|----------------------|----------|----------------------|
| TRINKAE WITH RANGELI HABIT LIST<br>MASTER LIST | 2V3V4V5V6V7V | HAPO     | 11.7 KM SW | 25 MAY 1977<br>YIAU-MIN HUANG | 04       | VALLEY | SCRUB | ALONG ROAD | DISTANCE FROM NEAREST HOME 100-999 M | LARGE | GROUND POOL | FULL SUN | TEMPORARY | STAGNANT | COLORED | FRESH | ABUNDANT | SUBMERGED; EMERGENT | AR.      | 2 AN. (NYS.) RANGELI |          | 5 AN. (NYS.) TRINKAE |
|  | LINE         | 56       | 5          | 22                            | 5        | 5      | 5     | 5          | 5                                    | 5     | 5           | 2        | 5         | 5        | 5       | 5     | 5        | 5                   | 5        | 5                    | 5        | 5                    |
|  | CATEG LINE   | 015      | 030        | 020                           | 060      | 120    | 136   | 160        | 170                                  | 200   | 202         | 210      | 220       | 225      | 235     | 250   | 270      | 275                 | 009      | 605                  | 600      | <b>8</b> 02          |
| DATE: 02/07/80                                 | SERIAL       | 00012490 |            |                               | 00012500 |        |       |            |                                      |       |             |          |           |          |         |       |          |                     | 00012511 |                      | 00012514 |                      |

.. 

## TRINKAE WITH RANGELI HABIT LIST

SELGEM MASTER LIST TOTALS:

NUMBER OF LINES PRINTED = 0000111 - NUMBER OF RECURDS PRINTED = 0000016

NUMBER OF LINES PROCESSED = 0000111 - NUMBER OF RECORDS PROCESSED = 0000016

How many individually reared and mass reared specimens are there from Ecuador?

MOSQUITO ECUADOR FILE SUMMATION

a. Individual rearings:

b. Mass rearings:

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